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THE PRESAGES OF LIFE and DEATH IN DISEASES.

J. Howell. 1823.

In SEVEN BOOKS.

In which the whole HIPPOCRATIC METHOD of predicting the various Terminations and Events of Diseases, is in a new and accurate Manner illustrated and confirm'd, not only by the Sentiments and Opinions of the ancient Physicians, but also by a long Course of attentive Observation and Experience.

By PROSPER ALPINUS,

Professor of Medicine and Philosophy in the University of Padua.

Translated from the last *Leyden* Edition, revised and published by GAUBIUS, at the Request of Dr. BOERHAAVE.

By R. JAMES, M. D.

Cujus Rei non est certa Cognitio, ejus opinio, certum reperire Remedium non potest: verumque est, quod ad ipsam curandi Rationem, nihil plus confert Experientia. Cels. Pref. L. i.

VOL. II.

LONDON:

Printed for G. STRAHAN and J. CLARKE in Cornhill; S. BIRT in Avemary-lane; D. BROWNE without Temple-Bar; and J. HODGES, London-Bridge. 1746.

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OF THE PRESAGES OF LIFE and DEATH.

BOOK V.

CHAP. I.

Concerning those Parts of the Body, the Observation of which contributes to the forming Prognostics.

HAVING already considered the Prognostics drawn from Appetite, we now come to treat of those arising from Nutrition, which are best indicated by an accurate Inspection not only of the whole Body, but also of all its particular Parts; for the Habit, Temperament and Colour are well or ill disposed according to the State of the nutritive Faculty. Thus, as has been said, the various Habits, Temperaments, and Colours both of the whole Body and of all its particular Parts, as also other things observed by Physicians in order to form Prognostics, belong to the natural Faculty in so far as they in-

dicate the Soundneſs or Indiſpoſition, the Strength or Weakneſs of this, and eſpecially of the nutritive Faculty. Hence we ſhall trace the Prognoſtics of Death or Recovery ariſing from an Inſpection of the Extremities of the Body. But we muſt firſt know what theſe Parts are. Firſt then, we are to inſpect the whole Body, and conſider whether its Habit, Colour and Warmth are of the natural Kind, whether it is ſlender, groſs, or affected with a Jaundice. After having viewed the whole Body, we are carefully to inſpect the Face, the Eyes, the Jaw Bones, the Noſe, the Mouth, the Lips, the Teeth, the Jaws, the Tongue, the Breaſt, the Back, the Hypocondria, the Liver, the Spleen, the Teſticles, the Glands, the Extremities, and the Parts in which Tumors and Abſceſſes happen; for in burning Fevers, and phthiſical Diſorders attended with a Suppuration, the whole Head is preternaturally ſmall. Perſons, whoſe natural Heat is reſolved, eſpecially in the Liver, become tumid, as is obſerved in cachectic and dropſical Patients. In acute Diſeaſes it is of great Importance to inſpect the Eyes, the Temples, the Jaw-Bones, the Noſe, the Mouth, the Tongue, the Teeth, and the Ears. And in Quinſeys, Pluriſies, and Peripneumonies it is of great Uſe to obſerve the Jaws, Neck and Breaſt. The Hypocondria alſo and the Extremities contribute greatly to enable us to form Prognoſtics. But we ſhall conſider theſe more particularly.

CHAP. II.

What is prognoſticated in Diſeaſes by the Body's reſembling or not reſembling that of a Perſon in Health.

WHEN a Patient's Body is like to that of a ſound Perſon in Habit, Colour and

the greater this Reſemblance is the better is the Sign, becauſe the Body muſt ſuffer or be extenuated and rendered lean and ſlender, by the Diſeaſe conſuming and corrupting its muſcular Parts, or, as *Galen* expreſſes it, by the Debilitation of the natural Heat, which cannot be extended to the Extremities, but is only obſerved in a ſmall Degree in the Viſcera, and in Conſequence of this, ſo much Blood and Spirits are not conveyed to the Extremities as formerly were; by this means Nutrition ceaſes or is diminiſhed. Hence in all Diſeaſes, eſpecially thoſe of the acute Kind, it is a good Sign when the Body is like that of a Perſon in Health, with Reſpect to Habit, Colour and Heat. But the Prognoſtic is not to be formed from this Sign alone, but from other concomitant Symptoms. But as it is a good Sign when the Body reſembles that of a Perſon in Health, with Reſpect to Habit, Colour and Heat, ſo it is always bad when the contrary happens, though thoſe who are ſick, muſt neceſſarily be changed with Reſpect to Habit, Colour and Heat. It is a very bad Sign, when in the Beginning of acute Diſeaſes the Body appears extenuated and conſumptive, and eſpecially the Face or Countenance, which is more eaſily changed than other Parts. But to proceed regularly in forming Prognoſtics from the Habit, the Colour and the Heat, we ſhall firſt enquire what is prognoſticated by a ſqualid, dry, extenuated and tabid State of the Body, and then proceed to conſider the Prognoſtics ariſing from a change of Colour and Heat.

CHAP. III.

What is ſignified by Emaciation or Extenuation, and what by a Tumefaction of the Parts of the Body.

DISEASES are ſometimes obſerved to cauſe a remarkable Leanneſs, or Extenuation, and ſometimes a Tumefaction of the Body, the Knowledge of the various Habits of which is of great Importance towards predicting the Fate of the Patient. We ſhall therefore firſt ſhew what a lean, ſqualid and waſting Habit of Body ſignifies in Diſeaſes: Now it is certain, that Bodies become lean or extenuated for want of Nutrition: This the Greeks call ἀτροφία, "an Atrophy;" and we in Latin *Innutritio*, "Innutrition," or want of Nutrition; in which, as *Galen* ſays, *de Sanit. tuend. Lib.* 3. *Cap.* 13. Bodies receive no Benefit from Aliments. This is what is meant by *Hippocrates*, 2 *Aph.* 8. where he ſays, "That if a Perſon juſt out of a "Diſeaſe receives no Strength from the Aliments "he takes, it indicates that he uſes too much Ali-"ment; but if the Caſe be the ſame, when the "Patient takes no Food, Evacuation is indicated." And to the ſame Purpoſe he ſpeaks afterwards, 2 *Aph.* 31. "If, after a Sickneſs, the Body receives "no Benefit from Food taken with a good Appe-"tite, it is a bad Sign." And this is the Atrophy, or Innutrition, which is obſerved in Bodies free from febrile Heats, or labouring under a long, but ſlow Fever. Wherefore in long and tedious Diſtempers, though it be natural for the Body to be emaciated, and the Fleſh to be very much waſted; yet if, in the Decline of the Diſeaſe, the Strength and bodily Habit of the Patient receives no Improvement, though he eats with an Appetite, it predicts a Relapſe. In an Hectic Fever,

Phthiſis, or Peripneumony, an incurable Leanneſs and Emaciation is a very bad Prognoſtic; but when it proceeds from a Spitting of Blood, attended with a ſlow, but continual Fever, it portends nothing but Death: And where a Phthiſis is ſuſpected, what principally abates the Hopes of the Phyſician, is the obſtinate Leanneſs and Extenuation of the Patient, and his labouring continually under a Fever. They, alſo, who have long laboured under burning Fevers, and are very much emaciated, and falling into a Maraſmus, are incurable. We may conclude, therefore, that an inveterate Leanneſs, Thinneſs, or Extenuation of Body under a Pleuriſy or Peripneumony, where the peccant Matter is not duly diſcharged by Expectoration, is a mortal Sign, as indicating a Phthiſis.

But we ſhall proceed to treat of *Extenuation* in acute Diſeaſes, and particularly at their Commencement, which is of great Moment in Prognoſtics, according to the Judgment of *Hippocrates*, 2 *Aph.* 28. where he pronounces it, " A bad Sign " for the Body, under a conſiderable Fever, not " to be waſted at all, or to an immoderate De- " gree, that is, beyond what Reaſon requires; " for the latter indicates a great Decay of Strength, " and the other prognoſticates the long Duration " of the Diſeaſe." Now it is no more than what Reaſon requires, that a violent Fever ſhould cauſe a ſpeedy Extenuation, like that from long Diſeaſes, and moſt eaſily in Children and old Perſons; in theſe, becauſe of the Weakneſs of the Faculty; and in the others, from their hot and moiſt Temperament; whence they ſuffer under a profuſe Colliquation, and are ſoon extenuated. We may add, as Cauſes, the Climate, with an hot and dry Seaſon of the Year. In theſe Circumſtances there is Reaſon for the Patient's Extenuation, as well as from a copious preceding Hæmorrhage, much

Sweating, Plenty of Urine, Vomiting, or Looſeneſs, long Faſting, want of Sleep, and Solicitude of Mind: *Galen* adds to theſe Cauſes the Laxneſs of the Body, and the Thinneſs of the Humours, which occaſion an extraordinary Diaphoreſis and Extenuation. All theſe Things waſte and extenuate the Body, without enabling us to pronounce any Thing with Certainty, on the Event of the Diſeaſe. But for the Patient, in the Beginning of the Diſtemper, on Account of none of theſe external Cauſes beforementioned, but with a cold and dry Body, in the Winter Seaſon, and a cold Conſtitution of the Air, in the Vigour of his Age, with groſs Humours, and a denſe Skin, ſpeedily to fall away, and be emaciated, muſt be a very bad Sign. *Galen*, commenting on this Aphoriſm, gives a Reaſon why the Continuance of the Body in the ſame State, without Exhauſtion or Diminution, ſhould be reckoned a bad Prognoſtic; which is, he ſays, becauſe ſuch a Diſpoſition indicates a Groſſneſs of the Humours, and a Denſeneſs of the Skin.

Of all the Parts in the Body, the Face is the firſt extenuated in acute Diſeaſes, becauſe the acrimonious Heat, aſcending like a Flame, conſumes the ſmall Parcels of Fleſh which are incumbent on the Bones and Cartilages, and the Leanneſs appears more conſpicuous in the Face, becauſe that Part is leſs furniſhed with Fleſh. A Face which threatens the greateſt Danger is deſcribed by *Hippocrates*, *Prognoſt.* in the following Manner. " The Noſe is ſharp, the Eyes hollow, the Temples " depreſſed, the Ears cold and contracted, and their " Lobes inverted; the Skin about the Forehead hard, " tenſe, and dry, and the whole Face of a pale-green, " black, livid, or leaden Colour." This Sort of Face, which goes, among Phyſicians, by the Name of *Facies Hippocratica*, is uſually ſeen in Hectical and Phthiſical

Phthiſical Patients, who are very much extenuated; and if it appears in two or three Days from the Commencement of the Diſtemper, without any preceding extrinſic Cauſe, as from ſome remarkable Evacuation by an Hæmorrhage, Sweats, Stool, or Urine, or from want of Sleep, Faſting, or Trouble of Mind; nor has for its Subject a Child, or decrepit Perſon, whoſe Habit of Body is eaſily diſſoluble by a ſlight Cauſe; but happens to one of adult Age, of a denſe Habit, and, what is principally to be regarded, in a frigid and dry Temperament, in the cold and moiſt Seaſon of the Winter, and a ſuitable Conſtitution of the Air, prognoſticates the worſt of Events: For, as *Galen* ſays in his Comment on the Place, " Such Symp-
" toms proceed either from ſome Cauſe which cor-
" rupts and conſumes the fleſhy Parts, or from
" the Defect of the natural Heat, which is too
" weak to extend itſelf to the extreme Parts of
" the Body, but keeps its Reſidence in a feeble
" State in the Viſcera; whence thoſe Parts are
" deprived of their uſual Supplies of Blood and
" Spirits." This Extenuation of the Face then proceeds from an intenſe Heat, which ſpeedily conſumes the natural Moiſture, or corrupts the ſame by its Malignity, and from a Decay and Languiſhment of the natural Heat, through the Force of the Diſeaſe: And if there be no Reaſon to be given for this Symptom, ſuch as a preceding Abſtinence, want of Sleep, or Solicitude of Mind, this Habit of Face is a mortal Indication. *Hippocrates* has expreſſed himſelf to this Purpoſe, in the following Manner, *Prognoſt.* " If ſuch be the Coun-
" tenance of the Patient [as before deſcribed] and
" we have no other Signs by which to form a
" Judgment, it will be proper to enquire of the
" ſick Perſon, whether he has been affected with
" want of Sleep, or a violent Flux of the Bel-

" ly, or has fasted a considerable Time; and, if " he confesses any of these Circumstances to have " preceded, his Case is less dangerous, and, if such " a Visage be owing to any of the forementioned " Causes, we may pass a Judgment on them in a " Day and a Night; but if none of these appears " to be in the Fault, and the Face continues " under the same Aspect, during the time just " mentioned, it is a mortal Prognostic." But how we may know, without interrogating the sick Person, whether there has been any preceding Watching, Fasting, or immoderate Evacuation, we are taught by *Galen*, in his Comment on the Place, as follows: " You may know at first Sight of the " Patient, whether he has been long without " Sleep; for you may observe his Eyes to be very " squalid, which they are to a greater Degree from " an evident and immoderate Evacuation: Besides, " he will hardly be able to lift up his Eye-lids, " but will wink, and move his Eyes in the same " unsteady and irregular Manner, as in a Coma: " and though you have never seen the Patient be- " fore, you will be enabled to form some Judg- " ment of him by the Pulse, which will always " preserve some Indication, however small it be, " of an immoderate Evacuation, if that be the " Case; but, if want of Sleep be the Cause of " such an Aspect, the Pulse will resemble the Vi- " brations of an extended Cord: But if such a " Countenance proceeds only from Abstinence, or " want of Food, none of the Signs which indicate " an immoderate Evacuation, or want of Sleep, " will appear, for which Reason there will be more " Grounds to judge from accidental than proper " Signs, that the Patient is affected in this Man- " ner for want of Food, especially when the Fe- " ver, upon due Consideration, does not appear, " in the least, to have the Property of a colli-

" quative

" quative Heat; for, if that were the Caſe, this
" Extenuation of the Countenance might be ow-
" ing to the Fever, rather than any extrinſic
" Cauſe. You ought, therefore, to be the longer
" in feeling the whole Hand of the Patient, and
" not only the Wriſt, but the Parts above it; and
" carefully obſerve, whether the Parts you touch,
" emit not only an acrimonious, but a palpable
" Plenty of Effluvia, which like a Flame per-
" vade the Skin of your Hand, with which you
" touch the Skin of the Patient, and inſinuate
" themſelves deeply therein; for theſe are the Fe-
" vers, which render the Face of ſuch an Aſ-
" pect."

From a due Conſideration of the Premiſes you will be enabled to pronounce, whether the *Facies Hippocratica* proceeds from Watching, Faſting, or evident and immoderate Evacuation; and if in the Beginning of acute Fevers, the Face appears extenuated, in the Manner deſcribed, it predicts nothing but Death: but in ſome chronical Diſeaſes, as in Hectic Fevers, and a Phthiſis, not only the Face, but the whole Body, is rendered ſqualid and dry, and reduced to Skin and Bone.

But we ſhall now briefly conſider, what may be inferred, or prognoſticated, from a Tumidneſs of the Body: For the Body to be inflated and tumefied, is never a good Sign, ſince in acute Diſeaſes the Face is ſwelled, either by the Redundance of the Blood in the Veſſels diſtending the Veins, and by the Vapours, whence proceeds an Heavineſs of the whole Body, as in continual Fevers; or from an Inflammation with an Afflux of Humours, as in the Parotides; or laſtly, on Account of a windy and vaporous Crudity, from a vitiated Sanguifica-on, as in pituitous Fevers, and the Leucophlegmatia or Anaſarca: A Tumefaction from the two firſt Cauſes is not ſo very bad, nor can any Thing, with

with Certainty, be prognosticated from it; but in the last Case, where there is a Tumidness or Bloatedness from a gross Vapour distending the Skin, and occasioned by a refrigerated Liver, and a vitiated Sanguification, the Destruction of the Patient may be often prognosticated. To this Purpose, the Author of the *Coac. Præsag. T.* 139. says, "That those who labour under a Lethargy, are "swelled, or bloated, and have their Cheeks in-"flated." From the same Cause, that is, a Refrigeration of the Liver, under a very hot and acute Distemper dissolving the natural Heat of that Part, the Hypochondria, Belly, Feet, Hips, and Face, are œdematously affected, not without great Danger of Life: This is the Case of those who fall into a Dropsy, and this is what is meant by *Hippocrates*, *Prognost.* when he says, "That all Dropsies "proceeding from acute Diseases are bad; for they "allay not the Fever, and are, besides, very pain-"ful and mortal, and generally commence at the "Ilia and Loins, and sometimes at the Liver." In many Persons affected with an *Empyema*, or *Phthisis*, at the Approach of Death, the Feet, Legs, and Face appear swelled and cadaverous, from no other Cause than the extreme Decay of Heat in the Liver; and I have known several Instances of Persons, who, at the Approach of Death, have had the whole of their Bodies tumefied and inflated.

Hence we conclude, that an Inflation of the Body under acute Diseases is never good; but in an *Empyema* or *Phthisis*, mortal to the last Degree. However, for the Parts to appear tumid is not always a bad Sign in acute, and much less in chronical Distempers; for in many of these latter, the natural Heat being debilitated by the long Course of the Disease, the Feet are tumefied; which afterwards subside, as the Heat recovers Strength, from a

Dis-

Diſcuſſion of the Vapours, and a Deſiccation of the Humours in the Legs and Feet. Sometimes it happens, that, in acute Diſorders, the Face, as we ſaid, ſwells, from Vapours excited by the febrile Heat, and not diſcuſſed; but, on their Diſcuſſion, is ſoon afterwards freed from the Inflation. We muſt be cautious therefore in our Predictions from Tumefaction of the Face in Diſeaſes, and not preſume to prognoſticate from it, without a thorough Inſpection and Conſideration of the other Signs which appear in the Countenance.

CHAP. IV.

Of Prognoſtics drawn from the Colour of the Patient's Body.

HAVING conſidered the Prognoſtics ariſing from the Habit of the Body, we now come to treat of thoſe ariſing from its various Colours. We ſhall therefore firſt treat of a Change of Colour, and what it prognoſticates in Diſeaſes; and then conſider the durable and permanent Colours. Bodies are ſaid to change their Colours, when they frequently or rarely change their natural Colours; when, for Inſtance, a florid Colour is changed into a pale, a white, a yellow; an eruginous, a green, a leaden or black Colour. This Change of Colour is ſometimes produced by an apparent Cauſe, and ſometimes without one, in which Caſe it is a very bad Sign, unleſs it is critical; for when Bodies retain their Strength, and do not ſuccumb to the Diſeaſe, they preſerve their proper and natural Colour; ſanguine Conſtitutions a red, and bilious Habits a pale Complexion. But when they are almoſt over-powered by the Diſeaſe, a florid Colour is changed into a pale, a yellow, or ſome other Colour: But we ſhall afterwards conſider

what

what is prognosticated by each of these. A critical Change of Colour is known from other critical Signs, and from the Signs of Concoction; since, according to *Galen*, there can be no good Crisis when the Signs of Crudity appear, because Concoction must necessarily precede a laudable Crisis; *Galen* in *Lib. de Præsag. ad Posthumum*, tells us, "That from an excessive Redness of Face in a "certain Roman Youth, he prognosticated a fu-"ture critical Eruption of Blood from the No-"strils." But sometimes the Colour of the Body is changed without any apparent Reasons, the Times of the Accessions of the Disease being changed; as when in the Beginning they who are seized with a Rigor, a Horror, or a Refrigeration, contract a pale, a white, or a brown Colour, after which, the Paroxysm increasing, they return to their former Colour: Soon after the Paroxysm becoming stronger, they acquire an higher Colour, and then return to their usual Complection. It is always a good Sign, when the Colour is changed on Account of the Heat, as also when it is changed on Account of a succeeding laudable Crisis: But these are discovered by other good Signs, especially by the Signs of Concoction appearing before or in Conjunction with them. The Change of Colour is also good, when it happens from a bad to a more laudable Kind; when, for Instance, black, or livid, or yellow, or green Parts are restored to a pale, or to their native florid Colour: On the contrary, all Changes of Colour, neither produced by Heat, nor by a Crisis, are to be condemned, especially when they appear with bad Signs, particularly such as denote Crudity. Those Changes are also bad, in which a good Colour is changed into a worse. But we now proceed to explain what is denoted by the various Colours of Bodies, beginning with the red. This Colour then depends

upon

a large Quantity of Blood tinging the Skin, ſo that *Galen* in *Lib.* 4. *de Sanitate tuenda*, juſtly obſerves, That a red Colour prognoſticates a Redundance of Blood. Thus a preternaturally red Face indicates either an Inflammation of the Skin, or a future critical Eruption of Blood from the Noſtrils, ſuch as that prognoſticated by *Galen*, in a Roman Youth, in Preſence of other Phyſicians. But this will not happen, unleſs good and laudable Signs of Concoction firſt appear. But if during the crude State of the Diſeaſe the Face is red, an Inflammation of the Head, and eſpecially of the Brain, is to be dreaded, ſince ſuch a Sign denotes that the Blood is conveyed upwards to the Head, and inflames it. Thus *Hippocrates*, *in Lib. de Humoribus* tells us, " That " the Colour of the Humours, unleſs they are re- " ſorbed to the internal Parts, appear on the Skin." And the Author of *Prorrhet in Lib.* 1. tells us, " That a red Face accompanied with Sorrow is " bad," becauſe it is a Sign of an hot Diſorder of the Brain, according to *Galen*, who tells us, " That " when the Face appears very florid, and the Pa- " tient is ſad, there ſeems to be in the Brain ſome " very hot Diſorder, which burns up the Blood, " and by that Means generates black Bile." Such a Colour of the Face, appearing without the Signs of Concoction, and with other bad Signs, generally prognoſticates a Phrenitis, ſince it indicates, that the Blood is conveyed to the Head and inflames it: But when the Redneſs of the Face remains, after Blood is diſcharged by Stool, the Menſes, or the Hemorrhoidal Veins, it is a ſufficiently manifeſt Sign of a Phrenitis. Thus in *Coac. Præſag. Text.* 465. we are told, " That dyſenteric, bloody, ſlimy, and " large Stools, happening in Perſons of highly red " Colours induce a Fear of Madneſs." Sometimes ſuch a red Colour denotes Convulſions, as when in *Lib.* 3. *Coac. Præſag. Text.* 109. we are told, " That

" in

" in Children labouring under acute Fevers, Cof-
" tivenefs, Watching, Reftlefsnefs, Change of
" Colour and exceffive Rednefs, prognofticate
" Convulfions." But a Rednefs of the Face, as we have already obferved, when accompanied with the Signs of Concoction, generally prognofticates a future Crifis, by an Eruption of Blood from the Noftrils, and fometimes proves the Sign of critical Abfceffes behind the Ears, as we are informed by *Galen*, *Lib.* 2. *Prorrhet. Text.* 14. when commenting on *Hippocrates* in 1. *Prorrhet.* 165. and *Coac. Præfag.* 183. Concerning the fame Sign, *Hippocrates* in *Coac. Præfag. Text* 200. tells us, " That Redneffes which
" happen near the Ears, after previous Pain in
" Fevers, prognofticate an Eryfipelas in the Face;
" but Convulfions are produced by them, when
" they are accompanied with a Privation of Voice
" and a Lofs of Strength." But this Rednefs is greatly to be condemned when the forementioned Symptoms are joined with it. A great Rednefs accompanied with Tumor in the Jaws, Neck and Breaft, is generally a good Sign in Quinfeys. Thus *Hippocrates* in *Sect.* 7. *Aph.* 49. tells us, " That in a
" Quinfey, a Rednefs and Tumor coming on are
" good Signs, becaufe they indicate that the Matter
" of the Difeafe is conveyed outwards." And in *Lib.* 5. *Prog.* he tells us, " That if Perfons labouring
" under a Quinfey have their Jaws and Necks
" red, the Quinfeys are of long Continuance, and
" the Patients generally recover if the Neck and
" Breaft contract a Rednefs, and if the Inflamma-
" tion does not return inwards." But the Woman labouring under a Quinfey defcribed by *Hippocrates* in *Lib.* 3. *Epidem. Ægr.* 7. though her Tongue, Neck and Breaft became tumid and red, yet died, becaufe the whole of the Inflammation was not conveyed outwards. In acute Difeafes it is a good Sign, when eryfipelatous Redneffes are formed

in the Legs and Arms, becauſe it denotes that Nature is ſtrong, and propels the peccant Humours to the ignoble Parts. In burning Fevers, and thoſe of the malignant ſynochous Kind, the Back and other Parts are often covered with red Spots, which are the worſe the more numerous they are, unleſs they diminiſh the Diſeaſe. But we ſhall afterwards conſider theſe more accurately, when we come to treat of the Prognoſtics of Abſceſſes, Tumours and exanthematous Eruptions. It is certain that a yellow Colour proceeds from a yellow Bile tinging the Skin; but this Colour is ſometimes good, when, for Inſtance, the yellow Bile is critically conveyed to the Skin, as in Perſons labouring under the Jaundice, of whom we ſhall ſpeak in the next Chapter. But it is ſometimes and even perpetually bad, when it is not critically produced, but appears in Conjunction with other bad Signs: Thus *Hippocrates*, in *Lib.* 1. *Prognoſt. Text.* 10. when ſpeaking of a Countenance of a bad Kind, tells us, " That the " Colour of the whole Face is green or black." And *Galen* tells us, " That it is a leſs bad Sign when " theCountenance appears green rather than black." In Perſons who have the Misfortune to be poiſoned, the Colour of the Skin is generally green, which is produced by the exceſſive Corruption of the Humours. Thus *Galen* in *Lib.* 5. *de Locis affectis* mentions, " A certain Perſon bit by a Viper, " whoſe Body was afflicted with an intenſe Heat, " which produced a greeniſh Colour." But a white or pale Colour is produced either becauſe the Heat retires inwards, or becauſe the Body abounds with cold and pituitous Blood. But in acute Diſeaſes, the Body generally turns pale when the Heat does not retire inwards, but through a want of Blood or an Extinction of the Heat; and for this Reaſon a pale Colour is familiar to ſuch as are dead.

dead. The Author of *Coac. Præſag. in Text.* 212. ſays, " That a pale Countenance is a fatal Sign;" but this Obſervation is to be confirmed by other Signs. The Paleneſs which proceeds from an Extinction of the Heat, or a Scarcity of Blood, is known from this, that it is afterwards changed into a livid, and then into a black Colour, which is eaſily obſerved in dead Bodies, which firſt become putrid, then livid, and then black. Thus *Hippocrates* in 5 *Epidem. Text.* 61. when deſcribing the State of a Perſon who had his Liver ſtruck with a Dart, tells us, " that immediately a Colour, like that " of a dead Perſon, was diffuſed all over his Bo- " dy, and he forthwith died." In acute Diſeaſes, livid and black Colours are of all others the worſt, becauſe they proceed from a violent Putrefaction of the Humours, or an Extinction of the native Heat: It is well known to Practitioners, that in acute Diſeaſes, black and livid Spots appearing on the Back, Loins, Pudenda, Noſtrils, and other Parts, indicate an exceſſive and as it were peſtilential Putrefaction of the Humours; and that in Perſons afflicted with the Plague, theſe Spots are ſo familiar, that their Appearance on the Parts of the Body, and eſpecially on the Pudenda, denote the Preſence of that Diſorder. *Hippocrates in* 1 *Coac. Præſag. Text.* 66. *Thucydides* and *Galen* reckon this the peculiar Sign of the Plague; and when theſe Spots are ſeen on dead Bodies, we may properly ſay, that the Plague rages. *Franciſcus Stabilis* has alſo learnedly demonſtrated in a particular Treatiſe, " That ſuch Spots denote a peſtilential and highly " poiſonous Corruption of the Blood." Theſe Signs are generally obſerved in poiſoned Perſons, according to *Galen in Lib.* 6. *de Locis affectis*, where we are told, " That the Bodies of Perſons cut off by Poiſon, " are found infected with livid and black Spots." For which Reaſon we may ſay, that a livid and black

black Colour are always bad, and though ſuch Spots have ſometimes appeared critically, and preſerved the Patients, yet this rarely happens; nor are they entirely ſafe, unleſs the Signs of Concoction appear, and the Strength is entire. But in other Diſorders, not of the peſtilential Kind, livid and black Colours denote, that the native Heat is ſuffocated. Thus in *Coac. Præſag. Text.* 212. we are told, "That if the Lips, Eye-lids, or Noſe "become livid, Death is not far off." Some obſerve, that the Cheeks turn livid, in many Patients, at the Point of Death. When we come to treat of the Prognoſtics, drawn from the Extremities, we ſhall ſhew, that in acute Diſeaſes, the Coldneſs and livid Colour of theſe Parts, are fatal Signs, becauſe they proceed from an Extinction of the natural Heat. A black Colour is more dangerous than a livid one, becauſe the former proceeds from a greater Extinction of the Heat than the latter. Thus *Galen* in 1 *Prognoſt. Com.* 9. tells us, "That a Change of Colour into black, is of all "others the worſt, becauſe when the Blood is re-"frigerated, it becomes congealed, juſt as when "it is taken out of the Body." Black and livid Colours, which ariſe from the Corruption of the Humours, or an Extinction of the native Heat, are of all others the worſt, ſince they prognoſticate inevitable Death: But ſuch Colours are not always fatal Signs, but ſometimes promiſe the Recovery of the Patient, when they ariſe from a venomous Putrefaction, critically propelled by Nature: Such Colours are alſo ſometimes produced by a Tranſmiſſion of a melancholic, black Humour, to the Skin; and if this Tranſmiſſion is critical, and accompanied with the Signs of Concoction, and other good Signs, it affords a good Prognoſtic; but if it is otherwiſe, it is a very bad Sign in acute Diſeaſes. The Method of diſtinguiſhing ſuch a

black Colour, as proceeds from a Defluxion of Humours, from that which arifes from a dying State of the Heat, is thus taught by *Galen*, "Sometimes a Part becomes black, becaufe a Matter is depofited in it; and fometimes, becaufe it is mortified. If the Patient bears the Diforder patiently, and has other falutary Signs, his Difeafe proceeds from a Defluxion of Matter, but if otherwife, it is a Mortification." Having thus treated of Colours and their Prognoftics, we now come to confider, what Prognoftics arife from, a Suffufion of the Gall, which frequently happens in acute Difeafes.

CHAP. V.

What the Jaundice prognofticates in Difeafes.

AS the Jaundice contributes very much to the Formation of juft Prognoftics, we fhall therefore confider it accurately. This Diforder is by fome called *Morbus Regius*, becaufe the Diverfions of a Court, which exhilarate the Mind, have a Tendency to cure it. Others call it, *Morbus Arcuatus*, becaufe under it the Colour of the Skin refembles that of the Rainbow. Others call it *Icterus*, becaufe in it the Colour of the Skin refembles that of a Bird, called *Galbula* [a Wood-Wall.] Others call it *Aurigo*, becaufe, in Perfons afflicted with it, the Colour of the Bile refembles that of Gold. The diagnoftic Symptom of this Diforder is a vitiated Colour of the Skin, produced by a Conveyance of either of the Biles to the Skin. Hence a Jaundice may be of two Kinds, either black or yellow, arifing from the black or yellow Bile. The Skin may be tinged with this Humour by Nature, protruded from the Vifcera, either along with an impure redundant Blood, or by itself.

ſelf. Thus *Galen*, in *Lib.* 4. *Aphoriſm.* *Aph.* 62. tells us, " That the Jaundice ſometimes happens " critically, when Nature conveys the yellow Bile " through the whole Body, and eſpecially to the " Skin: But Caſes of this Nature principally hap- " pen, when the Liver is indiſpoſed; and the In- " diſpoſitions of this Organ, which generally pro- " duce the Jaundice, are three, namely, hard Tu- " mors, Inflammations, and Obſtructions." In *Aph.* 64. he tells us, how this Diſorder is generated. " As there is an Expurgation of the Blood " and of the Bile, conveyed from its proper Veſ- " ſels to the Ducts, by the Greeks called *Cholodo-* " *chi*; if an Obſtruction, any Inflammation, or " hard Tumor, happens in the Parts, to which this " Tranſlation is made, the Blood cannot poſſibly be " duly purged, but the Bile muſt with it, be convey- " ed through the whole Body, and hence the " Jaundice is generated." From this Account of the Generation of the Diſorder, it is obvious that in Diſeaſes a Jaundice is neither always good nor always bad, ſince it ſometimes prognoſticates Recovery, and ſometimes Death. It proves fatal if it appears, when the Diſeaſe is abſolutely crude, and accompanied with other bad Signs; but it prognoſticates Recovery, when the Diſorder appears with previous Signs of Concoction, and other good Symptoms. But as ſuch a Knowledge is of great Importance in forming Prognoſtics, we muſt accurately enquire, when a Jaundice prognoſticates Death, and when Recovery. That Jaundice then is good, which in Fevers is excited by Nature, critically propelling the bilious Humours to the Skin; becauſe ſuch a Motion is of the critical Kind, and affords Relief: This Motion is preceded by the Signs of Concoction, and diſtinguiſhes the Diſorder from other Species of Jaundice, not produced by Nature; critically expelling

the groſs Bile, by a Weakneſs of the attractive Faculty of the Gall-Bladder, or by an Obſtruction of the Ducts which attract, or repel the Bile, or by an Injury or Obſtruction of the Liver, or by an Inflammation or Schirrhus of it. Firſt, in a critical Jaundice, the Urine is neither coloured like that of Perſons labouring under a Jaundice of another Kind, neither does it tinge Cloth with a ſaffron Colour, nor are the Excrements white, both of which are the pathognomic Signs of other Species of Jaundice. Secondly, in a critical Jaundice the Hypochondria, and eſpecially the right, are entirely free from Tumor, and preternatural Heat. Thirdly, a critical Jaundice is preceded by the Signs of Concoction. Fourthly, in a critical Jaundice, the yellow Colour appears on ſome of the critical Days, the Patient bears the Diſorder patiently, and the Fever is either totally, or in ſome Degree terminated: Hence this is a critical Motion, which happens on a critical Day, with the previous Signs of Concoction, without any Hardneſs of the Hypochondria, and with the Excrements and Urine in their natural State. This Motion is produced by a Tranſlation to the Skin of the groſs Bile, which cannot be eaſily diſcuſſed, for the thinner Bile is converted into Sweat, and carried off by Tranſpiration. Thus *Hippocrates* in *Sect.* 4. *Aph.* 64. tells us, "That in Patients labouring under a Fever, it is a good Sign when a Jaundice ſupervenes on the ſeventh, the ninth, the eleventh, or the fourteenth Day, unleſs the right Hypochondrium is indurated, but when a Jaundice happens otherwiſe, it is not good." In *Aph.* 62, of the ſame Section, he tells us, "That in Fevers, a Jaundice happening before the ſeventh Day is bad." So that he laid it down as a Rule, that after the ſeventh Day, a Jaundice is good, but never before: And *Galen* in his Comment,

ment, joining these two Aphorisms together, speaks in the following Manner, " Before the seventh " Day the Jaundice is always bad, but after the " seventh Day good, unless the right Ilium be- " comes hard, that is, unless some of the fore- " mentioned Disorders happen to the Viscera or " Liver." Hence, according to *Hippocrates*, a Jaundice is not good before the seventh Day, nor even after it, unless the right Ilium is absolutely free from Tumor; for such a Jaundice denotes, that Nature critically conveys the gross Bile to the Skin, and that this does not happen on Account of any Disorder of the Liver, Gall-Bladder, or biliary Ducts. *Diocles* affirms, that a Jaundice is not universally beneficial after the seventh Day; and *Averroes* in *Lib.* 4. *Collig. Cap.* 82. informs us, that in hot Climates, he had seen a laudable critical Jaundice happen on the fifth Day; *Celsus* also dissents from *Hippocrates*, as also *Pliny*, who in *Histor. Natural. L.* 26. tells us, " That though " *Hippocrates* taught, that in Fevers, a Jaundice " appearing before the seventh Day was mortal, " yet he knew some who survived a Jaundice " happening before that Time." But *Pliny* charges *Hippocrates* falsly; since *Hippocrates* does not affirm, that in Fevers, a Jaundice appearing before the seventh Day, is a mortal, but only a bad Sign. But Reason does not favour *Hippocrates*, since to assert, that a Jaundice in Fevers, after the seventh Day, is good, and before bad; is the same as to say, that in Fevers it is good after the seventh Day that the gross Bile should be conveyed to the Skin, and bad if it should be conveyed to it before: But some may affirm, that this Bile may, before the seventh Day, be both concocted by Nature, and propelled to the Skin; in which Case, the Jaundice will not be of the bad Kind. These Physicians may be reconciled by saying, that it may sometimes happen

in warm Climates, that the bilious Humour may be concocted, and critically expelled to the Skin, before the ſeventh Day, ſince that Humour, concocted in the ſame Time, is frequently critically diſcharged by Stool, Vomit, or Sweat. But the Rule laid down by *Hippocrates* is, that a Jaundice is good after, or on the ſeventh Day, but never before; becauſe, in this Space of Time, the thick bilious Humour depoſited to the Skin, is rarely well concocted before the ſeventh Day; and as this Humour when crude, cannot be critically and advantageouſly expelled, ſo he prudently determines, that the Appearance of a good Jaundice happens after the ſeventh Day. Nor was *Hippocrates* ignorant, that ſome Patients, who had been afflicted with a Jaundice before this Day, were reſtored to Health. Thus in 1 *Epidem. Com.* 2. *Text.* 65. he tells us, "That there were ſome ſeized "with a Jaundice on the ſixth Day, but theſe "were relieved by Urine, Stool, or large Erup-"tions of Blood; ſuch as *Heraclides*, who lay in "the Houſe of *Ariſtoclides*, who had an Eruption "of Blood from the Noſtrils, and had a copious "Diſcharge by Stool and Urine; on the twen-"tieth Day, this Patient's Diſorder was terminat-"ed: But it was far otherwiſe with *Phanagoreon*, "his Servant, who, as none of theſe Symptoms "happened to him, died." This alſo ſeems to be confirmed by him, when in 4 *de Ratione Victus in acutis*, *Text.* 8. he tells us, "That in a bilious "Fever, accompanied with a Rigor, a Jaundice "happening before the ſeventh Day, terminates "the Fever." Perhaps alſo thoſe whom *Averroes*, *Celſus*, *Pliny*, and others, ſaw cured before the ſeventh Day, had other Evacuations, and were relieved by them. But *Galen* places the Rule not in the Day, but in the Concoction of the Humours; for he affirms, that the Teſt for knowing

good

good Excretions, is the Concoction of the Humours, which if it appears before the ſeventh Day is good, even in a Jaundice: But as groſs Bile, like that which produces the Jaundice, is never in *Italy* (though in warmer Climates it may be) concocted ſooner than in ſeven Days, hence a critical Jaundice prognoſticates Recovery, when it happens on the ſeventh, ninth, eleventh, or fourteenth Days, without any Induration of the right Hypochondrium. *Hippocrates* alſo, in the laſt Part quoted, tells us, " That in a bilious Fever, the " Jaundice, attended with a Rigor, appearing be- " fore the ſeventh Day, terminates the Diſeaſe; " but if it appear without a Rigor before that " Time, it is a fatal Sign." The ſame Good is prognoſticated when, as we have elſewhere ſhewn, critical Rigors appear in bilious Fevers, for they prognoſticate ſome future good Evacuation, or Expulſion, or Depoſition of the Humours to the Skin, or to ſome other ignoble Part. Thus *Hippocrates* in *Sect.* 4. *Aph.* 58. tells us, " That if a " Perſon, labouring under a burning Fever, is " ſeized with a Rigor, the Fever is terminated." A Jaundice is alſo ſometimes good, when happening on the ſixth or any other Day, when one or more bilious Excretions appear along with it. Excretions of this Kind are by *Hippocrates* mentioned in 1 *Epidem. Com.* 2. *Text.* 65. But it is to be added, that the good Prognoſtics from a Jaundice ought to be confirmed by other good Signs. Let us now conſider, when a Jaundice is bad and fatal: Though *Hippocrates* in *Sect.* 4. *Aph.* 62. and in *Lib. de Criſibus* aſſerts, " That a Jaundice be- " fore the ſeventh Day is for the moſt Part bad," yet he does not affirm that it is mortal, as ſome have underſtood him: But if it appears before the ſeventh Day with bad Signs, and without ſome copious Evacuation, it will prove mortal. A Jaun-

dice of this Kind is by *Hippocrates* deſcribed in the Son of *Balus*, in *Lib.* 7. *Epidem. Text.* 19. and in *Lechus*, who lived near the Houſe of *Sitodochus*, and whoſe Caſe is deſcribed, *Lib.* 4. *Epidem. Text.* 25. *Galen* alſo, in *Lib.* 3. *Epidem. Com.* 1. *Text.* 5. tells us, " That no Abſceſs, even of the aurigin-" ous or icteritious Kind, is beneficial before Con-" coction; ſince it denotes an Obſtruction of the " Bile, on Account of ſome Inflammation which " hinders its Expurgation from the Viſcera and " Evacuation by Stool; but when the Diſeaſe is " critically concocted, Nature conveys not only " ſome other Humours, but alſo the yellow Bile " to the Skin." Thus when the Diſeaſe is crude, a Jaundice is bad: Hence we ſay, it is bad on the ſixth Day, becauſe the Diſeaſe is not then concocted; it is to be dreaded, when it appears with the Signs of Crudity, and is abſolutely mortal, when it happens with other bad Signs: Of this Kind was the Jaundice of *Hermocrates* who died of it, and of whom *Hippocrates* in 3 *Epid. Ægr.* 2. *Text.* 1. ſays, " That on the fifth Day he diſcharged thin " Urine, with a Subſtance in it, which did not " ſubſide, in the Night he became delirious: On " the ſixth Day he was ſeized with a Jaundice, all " his Symptoms were encreaſed, and he loſt the " uſe of his Reaſon." *Hippocrates* aſſerted, that a Jaundice was bad, not only before the ſeventh Day, but alſo after it, when the right Ilium was indurated. Thus in *Sect.* 4. *Aph.* 64. he tells us, " That " in Fevers, the ſurvening of the Jaundice on " the ſeventh, the ninth, the eleventh, or the four-" teenth Day is good, unleſs the right Ilium is " indurated, in which Caſe it is bad." If the Hypochondria are tenſe, hard, and at the ſame Time painful, the Jaundice proceeds, not from Nature conveying the Humour to the Skin, but from an

 In-

Inflammation, Tumor, or Obſtruction of the Liver: This Species of the Diſorder always affords a bad Prognoſtic, and when accompanied with other bad Signs it denotes Death; a Jaundice ariſing from this Cauſe, without a Fever, is alſo very dangerous, according to *Hippocrates* in *Sect.* 6. *Aph.* 52. where we are told, "That in Patients afflicted with the Jaundice, it is a bad Sign when the Liver becomes indurated." The Prognoſtic of the Diſeaſe will be much more ſtrengthened, if in a Jaundice, appearing with a Fever, the Heat of the Fever digeſts, and diſcuſſes a large Quantity of the Humour, which renders the Skin unſeemly; for when the Humour continues long, it ſhews, that the Cauſe cannot be ſubdued by Nature. Thus *Hippocrates* in *Lib.* 4. *Epidem. Text.* 25. tells us, "Of *Lechus*, who living near the Dwelling of *Sitodochus*, was ſeized with a Jaundice; on the ſeventh Day, ſays he, I came to him, on the eighth he died; having had for ſome Time before no Evacuations, either by Stool or Urine, but his Hypochondria were large and hard, and his Breathing thick." But in all Patients labouring under a Jaundice, we are carefully to obſerve, whether the Signs of Concoction have preceded, or whether any bad Symptoms appeared; for a Jaundice happening, when the Diſeaſe is crude, and bad Symptoms appear, is mortal; but when the Signs of Concoction have preceded, when good Symptoms happen, and there is no Tumor of the Ilia, a Jaundice always prognoſticates Recovery, on whatever Day it happens. But as a Jaundice rarely appears before the ſeventh Day in Fevers, *Hippocrates* therefore juſtly affirms, that it is bad before this Time. Having conſidered the Prognoſtics drawn from the Colour of the Body, we ſhould now proceed to treat of thoſe ariſing from its Heat; but that is al-

already done in *Lib.* 2. But we now proceed to treat of the Prognoſtics, drawn from all the Parts of the Body, beginning with the Face.

CHAP. VI.

Prognoſtics from the Change of the Face in Diſeaſes.

HIPPOCRATES, in his Book of *Prognoſtics*, directs us, " In acute Diſeaſes, to conſider, " firſt, the Countenance of the ſick Perſon, as " whether it be like that of Perſons in Health, " or, what is more regarded, the ſame as when " himſelf was in a ſound State; for, if it appears " in this Manner, it affords the moſt hopeful Prog- " noſtic, as the very reverſe to this carries the " moſt Danger in it." *Galen* commenting on this Paſſage, ſays, " That the Parts affected are " to be compared with the ſame when ſound; " and, if they appear alike, it is a good Sign, " if otherwiſe the contrary." In ſhort, if the Face, in acute Diſtempers, appears like that of ſound Perſons, we have good Grounds to hope for a Recovery, becauſe it ſignifies, that the Diſeaſe is neither violent, nor very malignant. But from an Alteration of the Countenance, as to a State of Extenuation, and that not in the Beginning, but in the gradual Progreſs, nothing of Certainty can be predicted, any more than if ſuch a Change ſhould be effected, not by the Diſeaſe, but by ſome other extrinſic Cauſe; as for Inſtance, by an immoderate Paſſion of the Mind, Want of Sleep, Flux of the Belly, Abſtinence, or the like, which frequently cauſe an Extenuation of the Face; which, for that Reaſon, in ſuch Caſes, can afford no certain Prognoſtic.

As to the Colour, a florid Colour of the Face is ſometimes good, as when it indicates a future Hæ-

Hæmorrhage at the Nose; and is the more to be depended upon, if attended with other Signs prognosticating the same Event, according to the Judgment of *Hippocrates*, *Coac. Prænot.* 142. "Per-
" sons under a Fever, says that Author, if they
" appear red in the Face, and are, besides, mo-
" lested with a violent Pain of the Head, accom-
" panied with an high Pulse, are generally seized
" with an Hæmorrhage.

But all the other concomitant Symptoms deserve also our Attention; such as Splendors, Flashes of Light or Mists passing before the Eyes, besides a Redness of the Face, and frequently, a tensive and gravitative Pain of the Head, a Tenseness of the Hypochondria without Pain, and a Difficulty of Respiration. From such Signs *Galen* predicted an Hæmorrhage in a young Man at *Rome*, in the Presence of many *Roman* Physicians, as he relates, *Lib. de Præsag. ad Posthum.* "While
" the Physicians, says he, were in Surprize,
" the Patient raised himself up, as though he
" would throw himself out of Bed, and being
" asked, why he would attempt to run out of
" Bed, when there was nothing present to excite
" him, he answered, that he was frighted at the
" Sight of a Serpent, of a red Colour, creeping
" over the Cieling, which, if it should chance to
" slip, would tumble down upon him, and, for
" that Reason, he was eager to fly out of Bed.
" The rest, who attended him, did not imagine,
" that this Phænomenon was of any Significati-
" on towards a future Hæmorrhage; but I, seri-
" ously considering every other Symptom, and
" particularly perceiving the Redness, which be-
" fore, though obscurely, extended from the
" right Side of the Nose to the Cheek, to be ve-
" ry much increased, regarded the same as a ma-
" nifest Indication of an approaching Hæmor-
" rhage,

" rhage at the right Noſtril." But, in predicting an Hæmorrhage, we are to conſider all the other Signs, as well as Redneſs of the Face, and eſpecially thoſe of Concoction. For in a crude Diſeaſe there rarely happens an Eruption of Blood, but what diſtils by Drops; which kind of Evacuation in burning Fevers, and moſt of all in Fevers attended with a Phrenſy, is much ſuſpected. To this we may add, that a Redneſs of the Face is ſometimes a Prognoſtic of an Abſceſs behind the Ears, or the Parotides, of which *Hippocrates*, according to *Galen*, is to be underſtood, 6 *Epid. Sect.* 2. *T.* 11. where after deſcribing ſome Symptoms, which prognoſticated a Defluxion on the Limbs, he ſays, " That moſt of thoſe [*whoſe Caſe* " *was before deſcribed*] who were by Nature of a " pretty white Skin, were intenſely red in the " Face, and yet had little or no Hæmorrhage " from the Noſe." *Galen* commenting on this Place, ſays, " That an intenſe Redneſs of the " Face, under a long and favourable Illneſs, gives " Expectations of a Criſis, by an Abſceſs, or De- " fluxion upon ſome of the Limbs, unleſs pre- " vented by a copious Hæmorrhage from the " Noſe." In the ſame Senſe are we to underſtand the Author of 1 *Prorrhet.* 165. where he tells us, " That they who labour under a Coma, " with a Reſtleſsneſs, a Pain in the Hypochon- " dria, and ſlight Vomitings, give Indications of " ſucceeding Parotides; but firſt we are to con- " ſider the Habit of the Face." Here *Galen*, in his Comment, ſays, " Before the Generation of the " Parotides, we are to regard the Signs afforded " by the Face, ſuch are a Redneſs, a preternatu- " ral Tumor, Humidity of the Eyes, Dim- " neſs of the Sight, and the like." From the Premiſes we may infer, that a Redneſs of the Face is often good by Accident, and may be called a cri-

critical Sign, whenever it precedes an Hæmorrhage from the Nose. But this Habit of the Face appears principally in the Height of the Fits, and especially in a Synochus, and a burning Fever, or where there is an Inflammation of the Lungs, in which the Cheeks, according to *Hippocrates*, in his *Prognostics*, contract a Redness. However, there is nothing to be predicted with Certainty, from this Habit of the Face alone, unless its Indication be confirmed by some other Signs, either good or bad. What has been said, relates to a good Face: We now proceed to enquire, what bad Prognostics may be drawn from an Alteration in that Part.

First then, *Hippocrates*, in his Prognostics, assures us, that, in the Beginning of a Disease, a Face which, without the Concurrence of some external Causes, becomes unlike what it was in Health, is a bad Sign, and, if it be quite the Reverse, a pernicious one, and in acute Distempers portending nothing but Destruction. Such is that Habit of Face, in which, as *Hippocrates*, in the Beginning of his Prognostics, describes it, " The Nose " is sharp, the Eyes hollow, the Temples sunk, " the Ears cold and contracted, and their Lobes in- " verted, the Skin about the Forehead hard, " tense, and dry, and the whole Countenance of a " pale, greenish, black, livid, or leaden Colour." This is what Physicians justly call a *cadaverous* Face; and if it appears in the Beginning of an acute Disease, that is to say, within three Days, it indicates nothing but Death.

The Face, in some chronical Distempers, from a Refrigeration of the Liver, and a depraved Sanguification, is observed to be tumid, just as it is in a Phthisis, and an Empyema; in which Cases it generally appears in that Manner on the Patients when dying. As to a red Face, when of bad Indication, the Author of the *Prorrhetica, Lib.* 1.

T. 49.

T. 49. ſays, " That a good Colour in the Face, " accompanied with a ſorrowful Aſpect, is a bad " Sign," as it indicates, according to *Galen*, in his Comment on the Place, a hot Affection ſcorching the Blood; whence ſuch a Floridneſs of the Countenance is, by ſome, ſuppoſed proper to a melancholy Affection. But in this Redneſs of the Face we are to have Regard to other concomitant Signs, and, if they are bad, it is pernicious; for a red Face, attended with bad Signs, ſometimes indicates a Phrenſy, and ſuch a one as is fatal, and ends in Convulſions. Thus a Redneſs of the Countenance, with a fierce Look, a Delirium, or ſome phrenetic Symptom is mortal. Of ſuch Patients we read, *Coac.* 162. " They, ſays the Author, " who labour under a Cephalalgia, and a Cato- " chus, accompanied with a Delirium, a Conſtipa- " tion of the Belly, a fierce Look, and a florid " Countenance, are affected with an Opiſthoto- " nos;" which is a ſort of Convulſion that draws the Head backwards, and fixes it in the Scapulæ, and is a mortal Symptom. But if the Face be not only hot, but of a fiery red, it is ſtill worſe, if attended with bad Signs. Of this Caſe alſo the Author of the *Coac.* 7. ſpeaks in the following Manner: " A Rigor, attended with a Coma, is " not without Danger: and if the Face be alſo " of a flame Colour, and in a Sweat, it indicates " a Malignity." And more fully to the Purpoſe is it expreſſed, 1 *Prorrhet.* 67. " A comatous " Rigor carries Danger in it, and, if attended " with a flame Colour of the Face, and a Sweat, " is deſtructive." *Galen* in his Comment hereon ſays, " We know, that a flame Colour of " the Face, attended with a Sweat, though with- " out a Rigor, is a bad Indication, becauſe a " Sweat is one of the critical Signs; and there- " fore, if it determines nothing, ſhews the Malig-

" nity

" nity of the Diſeaſe." A fiery Face then, with ſome critical Sign, as a Sweat, Vomiting, Flux of the Belly, or an Hæmorrhage, indicates Malignity, and is generally mortal. We are to obſerve alſo, on this Head, that the Face appears red in pulmonary Diſorders, but in theſe the Cheeks principally contract a Redneſs: for which Reaſon, when this Symptom appears in Fevers, we juſtly ſuſpect a Peripneumony, or an *Empyema*. Hence we are told, by *Hippocrates*, *Prognoſt*. that a Redneſs of the Cheeks is one Sign of an *Empyema*. And this Colour, attended with bad Signs, and eſpecially bad critical Signs, that is, ſuch Signs as determine nothing, preſages Death. The Fate of the Patient, under ſuch Circumſtances, is pronounced by the Author of the *Coac*. 67. in the following Words: " They, ſays he, who in " a Fever labour under an Averſion to Food, with " Sweats, and have a good Colour in the Face, " accompanied with a Looſeneſs, and a Cardial- " gia, after a long Illneſs, die after the Manner " of thoſe who are affected with a Peripneumony, " or other pulmonary Diſorders." Such was the Fate of *Polycrates*, 7 *Epid. Text*. 9. " Who, under " a Fever, was affected from the very Beginning " with a Cough, and Spitting, like thoſe in an " Empyema, accompanied with a Hoarſeneſs and " Wheezing in the Aſpera Arteria, and Fauces. " Her Face was of a good Colour, and there was " a Redneſs in her Cheeks, though not intenſe, " but moderately florid." This Woman was firſt affected with a Peripneumony, then with an Empyema, and died at laſt of a Phthiſis. A Redneſs of the Cheeks therefore, in long and ſlow Fevers, is an Indication either of a Peripneumony, or an Empyema, which end in a Conſumption, if attended with a dry Cough, though never ſo ſlight; provided alſo, that the Patient be ſubject to Exacerbations

cerbations or Inequalities of Heat in the Fever, though never wholly free from it.

CHAP. VII.

Of Presages from the Eyes.

PROGNOSTICS from the Eyes are the more considerable, because these, above all other Parts of the Body, furnish the judicious Observer with the surest Marks for predicting the Events of Diseases, according to that Sentence of the Divine *Hippocrates* 6 *Epid. Sect.* 4. *Aph.* 26. *According to the State of the Eyes, so is that of the Body; and so their Colours change together for the better or the worse.* If the Eyes be clear and lively, the Body may be judged to be in a good Condition; for, as *Galen* rightly says, in his Comment on the forequoted Place, a good Colour of the Eyes shews the Body to be in good Health. But we shall treat of such Signs as are afforded by the Eyes for predicting the Death or Recovery of the Patient; and first, we shall insist on those which are hopeful and salutary; and afterwards, on those which are pernicious and fatal.

First then, the Eyes of the Patient have a promising Appearance, and give no small Hopes of Recovery, when in Magnitude, Figure, Situation, Motion, Colour, Vision, and Splendor, they resemble the Eyes of Persons in Health; for sound and robust Eyes are always a good Indication; and such are those Eyes, as *Galen* observes, in his forecited Comment, which are of a lively Colour, full Bulk, and contain a splendid Humour: Eyes so qualified *Galen* calls sound and robust, because such an Appearance must be owing to the great Plenty of luminous animal Spirit, proceeding from the Brain to the Eyes; but on the contrary,

in

in Bodies weakened by Diſeaſes, Indications of this Nature are not ſo much to be regarded, nor much Danger to be apprehended from them. Good Eyes, then, are like thoſe of Perſons in Health, of a florid Colour, full, ſplendid, ſeeing at a Diſtance, through a luminous Air, without Moleſtation, free from Redneſs, Lividneſs, or Blackneſs, and without Tears or Excrements, called by *Hippocrates*, λῆμαι, *Lemæ*, adhering to their Angles: Theſe we may always call *good Eyes*, as indicating a good State of the Body, and of the Head in particular.

But for our more ſecure Prognoſtication from the Eyes, we are to conſult and conſider other Signs appearing at the ſame Time, which if they happen, alſo, to be good, we may with Confidence predict the Patient's Recovery. For the Eyes by themſelves are incapable of determining our Judgment; nor have they any Thing of Certainty, to which we may ſafely truſt, in forming a Prognoſtic; ſince, in ſome continual Fevers, the Eyes ſometimes make a good Appearance, when the Fever is taking a fatal Turn, though indeed it rarely happens for the Eyes to be in a good State, when the Patient's Affairs tend to a fatal Iſſue; and therefore good Eyes generally afford no ſmall Hopes of a Recovery. But not only thoſe Eyes which are ſuppoſed to be good, but ſometimes bad Eyes, may, by Accident, prove ſalutary Indications; for inſtance, Eyes avoiding the Light, as incapable of bearing it, weeping Eyes, intenſely red, ſhining, dark, dim, dull, diſtorted, tumid, hollow, cloſed Eyes; provided they put on ſuch an Appearance againſt an approaching Criſis: I except from thoſe beforementioned, ſuch Eyes as are not rendered ſo by the Diſeaſe, but from ſome extrinſic Cauſe; theſe afford nothing of Certainty, becauſe they appear thus changed imme-

diately at the Beginning, at a Time, when they are quite incapable of ſuffering a critical Alteration, as is implied in what *Hippocrates* ſays, *Lib. Prognoſt.* " That in the Space of three or four " Days the Eyes become and appear bad, through " the Force of the Diſeaſe." External Cauſes are eaſily underſtood from the Patients themſelves; and of theſe we find *Galen* ſpeaking, *Com.* 1. *in Prognoſt. Text.* 10. where he ſays, that " Some- " times in the Beginning of a Diſtemper, through " much drinking of Wine, or violent Vomiting, " the Eyes avoid the Light, ſhed Tears, are di- " ſtorted, or ſuſpended, ſwell, or appear with red " Veins." But at the Approach of a Criſis, when Nature is contending with the Diſeaſe, theſe bad Symptoms appear in the Eyes.

Some Eyes, for Inſtance, flow with Tears, at the Approach of a critical Hæmorrhage from the Noſe, according to *Hippocrates*, 1 *Epid. Stat.* 3. " From thoſe who under acute Fevers, and eſpe- " cially thoſe of the burning Kind, are affected " with a ſpontaneous or involuntary Flux of Tears, " you are to expect an Hæmorrhage from the " Noſe, if there be no concomitant deſtructive " Signs; otherwiſe Weeping prognoſticates not " an Hæmorrhage, but Death." We are to make a Diſtinction of Tears into voluntary, and involuntary, or ſpontaneous: Theſe laſt with critical Signs indicate a critical Eruption of Blood; but voluntary Tears never afford us any ſolid Foundation for grounding a Prognoſtic. Agreeable hereto is that of *Hippocrates*, 4 *Aph.* 52. " In a Fever, " or any other Diſtemper, Tears flowing voluntarily have nothing improper or unuſual [ἐδὲν ἄτοπον] but involuntary Tears are more accountable, [ἀτοπώτερον]" or as *Galen* in his Comment, reads it in the poſitive Degree, " ἄτοπον, unaccountable." But, in Order to explain the Sentiments

timents of *Hippocrates*, as delivered in this Aphorism, that they who weep voluntarily do nothing absurd, or that argues a Diminution of Reason, but Tears falling involuntarily from the Eyes, are more unaccountable, or import a greater Defect, and are more to be suspected than the other; and in the Passage above quoted, that involuntary Tears, where they are no Signs of a Crisis, portend Death; and also, 6 *Epid. Sect.* 1. *Aph.* 16. "That in acute Diseases, where the Patient is "much oppressed by the Violence of the Disor-"der, voluntary Tears are a good Sign, but in-"voluntary, the contrary." We shall endeavour to obviate all Difficulties by observing, that Tears are said to be spontaneous on two Accounts: First, when they flow without any Desire of the Patient, being such as *Hippocrates* means by ἀκόντων, and ἀκούσια, in the Passages above quoted, that is, flowing spontaneously, or of themselves, without the Concurrence of the Will or Desire of the Patient. In the second Place, Tears are said, in another Sense, to be spontaneous, or to flow spontaneously, when they flow at the Desire, or with the Will, of the Patient, and therefore *Galen*, *Com.* 1. *in* 1 *Epid.* to avoid all Ambiguity, and for the better Illustration of the Sentence, and the Truth, chose to express himself by a Word which signified not *spontaneous*, but *involuntary*; for *spontaneous* is spoken with Reference sometimes to the Patient, sometimes to the Disease. But, to remove all Possibility of Mistake, let us distinguish Tears into voluntary and involuntary, which latter were sometimes called by *Hippocrates*, *spontaneous*, because, as was said, they flowed spontaneously, or without the Concurrence of the Will, and those *non-spontaneous*, which flowed in some Measure at the Desire of the Sick. But, to prosecute our Design, we say, that voluntary Tears are of no im-

portant Signification towards a future Event; and therefore we are told by *Hippocrates*, in the above cited Aphorism, that such Tears portend nothing irregular, or bad; and justly he might say so, since they proceed not from the Disease, but the Will of the Patient, whereas involuntary Tears, which flow without the Will of the Sick, are always bad, except they precede and portend a Crisis, agreeably to that Passage of *Hippocrates*, 1 *Epid. Stat.* 3. above quoted. But, that Tears may be judged critical, it will be necessary, in Order to a good Crisis, that Signs of Concoction should have preceded them; in which Case, they portend a Crisis, and very well deserve our Regard.

The same Event may often be predicted, from Light passing before the Eyes, Dimness, and Redneſſes in the Eyes, which Signs, together with Tears, *Galen* in his third Book of *Crises*, reckons among Prognostics of an impending Hæmorrhage. Sometimes, before such an Event, there is a Redness of the Eyes, attended now and then with a Redness of the Cheeks and Nose: A Dulness of Sight, also, if attended with a Pain of the Head, is sometime succeeded by an Hæmorrhage from the Nose: This is the Sentiment of *Hippocrates*, *Lib. Prognost*: where he says, "Some, in the first Period, "[ἐν τῇ πρώτῃ περιόδῳ] are affected with an Hæ-"morrhage from the Nose, and are very much "relieved by it; but we are to examine, whether "there be any Pain of the Head, or Dimness of "Sight; for, if there be any Thing of that Na-"ture, it tends to such an Event." Such an Hæmorrhage may, also, be predicted from the Patient's being disordered at Flashes of Light striking the Eye, attended with Deafness, Heaviness of the Head, and a Distension of the Hypochondria, as we read *Coac.* 195.

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That a Redneſs of the Eyes prognoſticates the like, we are taught by the Author of the *Prorrhet. Lib.* 1. *T.* 137. where he ſays, " That Pains " of the Neck, with intenſely red Eyes, fore- " ſhew an Hæmorrhage." And to the ſame Purpoſe, *Coac.* 166. we read, that " They who are " affected with a Cephalalgia, and a Catochus, at- " tended with Pain and a great Redneſs of the Eyes, " are relieved by an Hæmorrhage from the Noſe." But this Symptom muſt be preſumed of true Signification only when preceded by Signs of Concoction; for in the Beginning or crude State of a Diſeaſe, red Eyes are never a good Prognoſtic.

Sometimes, at the Approach of a Criſis, there is a Perverſion and Diſtortion of the Eyes, as it happened to the Patient in the Garden of *Dealces*, 3 *Epid. Ægr.* 3. of whom it is ſaid that, " On the " ninth Day he was ſeized with a Rigor, and had " an high Fever; ſweated, and was cold; fell in- " to a Delirium, had his right Eye diſtorted, with " a Drineſs of the Tongue, Thirſt, and want of " Sleep." *Galen*, commenting on this Place, ſays, that " A Delirium and Diſtortion of the right " Eye, on the ninth Day, as there deſcribed, are " Symptoms which uſually happen in Criſes."

Cloſed, and now and then twinkling Eyes, ſometimes foreſhew an Hæmorrhage, according to *Coac.* 77. where we read, that " They, who, " under a continual Fever, lie ſpeechleſs, with " their Eyes ſhut, and now and then twinkling, " if ſeized with Vomiting, and an Hæmorrhage " from the Noſe, ſucceeded by the Recovery of " their Speech and Senſes, eſcape; otherwiſe they " fall into a Dyſpnœa, and die in a ſhort Time." For Eyes thus affected, indicate the Head to be oppreſſed with a Redundance of Humours; and if the Patient, in this Caſe, be favoured with a conſiderable Evacuation, he eſcapes by a Criſis; Na-

ture, by a copious Excretion, freeing itſelf from that Load of Humours under which ſhe lay oppreſſed.

A Change therefore in the Eyes, or their Motions, or ſome remarkable Diſorder or Defect therein, often proceed from a Criſis, and therefore are no bad Signs, but Prognoſtics of a good Criſis; and this Judgment will be confirmed, if no bad Sign appears in Conjunction with them, and Signs of Concoction have preceded them; but if the Caſe be the Reverſe, they are not only bad, but generally mortal Signs.

Now there are three Things requiſite to a good critical Sign: Firſt, that it be conſequent to Signs of Concoction. Secondly, that it be not attended with any bad Sign. And laſtly, that it be ſucceeded by ſome Evacuation in which the Patient ſhall find conſiderable Relief. To this Purpoſe is that of *Hippocrates*, before quoted, 1 *Epid. Stat.* 3. that "involuntary Tears, in acute Diſeaſes, ſignify an "Eruption of Blood, if unattended with other "deſtructive Signs; but if theſe alſo appear, "they jointly ſignify not a Criſis, but Death."

But we have ſaid enough of ſalutary Signs obſervable in the Eyes: We ſhall now treat of ſuch as are of pernicious or fatal Signification, and here, in general, it is bad and pernicious, under acute Diſeaſes, for the Eyes to appear bad or diſordered; as when they ſhun the Light ſhed Tears; appear red or inflamed, or with intenſely red Veins in the white; are livid, or black; have a fierce, grim, or fixed Aſpect; are dull, heavy, weak, or not robuſt, hollow, tumid, prominent, tabid, dry, ſqualid, duſty, cloſed, or with the Eye-lid half ſhut, half open; are ſuſpended, unſtable, concreted, have too much, or too little Splendor, or are cloudy and obſcure, void of Splendor, and infeſted with pituitous Excrements. Such Eyes as theſe, conſidered

dered in themſelves, are never good, and are only ſo by Accident, when Nature ſtruggling with the Diſeaſe, they foreſhew a Criſis, and are reckoned among critical Signs.

All theſe Signs juſt mentioned, which, in acute Diſeaſes, are obſervable in the Eyes, ſhew the Condition of the Patient to be at leaſt very doubtful. But ſome Signs are plainly fatal, as when the ſmall Veins in the Eye appear livid and black, and the Patient has loſt his Sight as well as Hearing; when the Eyes are deſtitute of all Splendor, and when all the abovementioned Signs concur with ſome fatal one; and moſt of all, when they appear on a critical Day, attended with critical Signs, which determine nothing, or leave us ſhort of a Criſis.

But for more Perſpicuity we ſhall treat particularly of theſe Signs; and we ſhall begin with thoſe which *Hippocrates* mentions, *Lib. Prognoſt.* " If " the Eyes, ſays he, avoid the Light, or ſhed Tears " involuntarily, or are diſtorted, or become one " leſs than the other; if the White of the Eye be " red, or a ſmall Vein thereof appear livid and " black; if pituitous Sordes [λῆμαι] infeſt the " Pupil; if the Eyes are ſuſpended, [ἐναιωρεύμενοι.] " protuberant, or remarkably hollow; or the Pu- " pil appears ſqualid, and void of Splendor; or " the Colour of the Face be quite altered; all " theſe are to be eſteemed bad and pernicious " Signs." But to theſe we may add the Limitations of the ſame Author, in the Caſe of the *Facies Hippocratica*; which are, " Provided theſe " Symptoms proceed not from ſome external " Cauſe, as want of Sleep, Faſting, an immoderate " Looſeneſs, Drunkenneſs, or ſome ſuch Circum- " ſtance."

But we ſhall proceed, as we ſaid, to conſider each Symptom more accurately under its proper

Head, beginning with Sight or Viſion. And when it happens in acute Diſeaſes, that the Eyes avoid the Light, and can by no Means endure to behold the Splendor of the Air, which was an uſual Symptom of the Peſtilence at *Padua* ſome time ago, and generally mortal, it is pronounced by *Hippocrates*, as we juſt now obſerved, a pernicious Sign, and very juſtly; for, as *Galen* obſerves, Eyes avoid the Light, on Account of the Weakneſs of the viſive Faculty, which ſometimes labours under an Affection of the Orifices, as in a Lippitude, and ſometimes is itſelf affected, which is a mortal Sign; and this latter caſe is diſtinguiſhed from the other, in that the Orifices of the Eyes are not at all affected.

For a ſick Perſon under an acute Diſeaſe not to ſee, is fatal, and moſt of all when the Strength is exhauſted, according to that of *Hippocrates*, 4 *Aph.* 49. "In a continual Fever, if the Patient "cannot hear, or cannot ſee, the Strength being "alſo exhauſted, Death is near at Hand."

Obſcurations of the Eyes, or Dimneſs of Sight, are alſo condemned by *Hippocrates*, 6 *Epid. Sect.* 1. *Aph.* 16. "For in acute Diſeaſes, ſays *Galen*, an "Obſcuration of the Pupil indicates a Weakneſs "and Decay of the viſive Faculty, unleſs it hap- "pens critically, as when it is attended with Signs "of Concoction, and other Signs indicating a "Criſis. But when it is accompanied with other "bad Signs, particularly critical ones, which fall "ſhort of a Criſis, of which Nature are all Eva- "cuations by which the Patient is not relieved, "or if it ſucceed ſuch Evacuations, it is a mortal "Prognoſtic." In this Senſe, perhaps, we are to underſtand the Author of the *Coac.* 105. when he ſays, "In long Diſeaſes, ſmall Tumors about "the Ears, attended with repeated Eruptions of "Blood from the Noſtrils, and a Scotomia, are "mortal."

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For the Eyes to look dull, or the Pupil and interior Parts of the Eye to appear to a Spectator like those of dead Persons, is accounted by *Galen, Com. in Prorrhet.* a most mortal Sign; which perhaps was meant by *Hippocrates*, 2 *Epid. Sect.* 6. in saying, that "they whose Eyes have lost their "Strength, are near to Death." This was the Case of the Wife of *Theodorus*, 7 *Epid. T.* 27.

It is a pernicious Sign, also, for the Eyes to be destitute of Splendor, as we are taught *Lib.* 1. *Prognost.* But for them to appear blind in a mortal Disease, shews Death to be very near, as it was in the Case of the Son of *Antiphones*, 7 *Epid. T.* 28. "Whose left Eye was first affected with Blind-"ness, and a Tumor, without Pain; and not "long after he became blind, also, in his right "Eye, and the Pupils of his Eyes became very "white and dry, and he died soon after his Blind-"ness." They who attend on dying Persons, observe the Decay of Splendor in their Eyes, with the utter Loss of which the Sight is extinguished.

To Eyes obtuse, or dull, squalid, and without Splendor, as described in *Lib. Prænot.* are opposed Eyes which have a fierce, bold, or grim Aspect, as mentioned 6 *Epid. Text.* 1. *Aph.* 19. Eyes thus affected are peculiar to Persons in a Phrenzy or Delirium; and generally portend Convulsions, or, with other bad Signs, Death; agreeably to that Aphorism of *Hippocrates* just mentioned, which says, that "a Fierceness of the Eyes portends a "Delirium; and a Distortion [καλάκλασις] or sink-"ing [ἔρρίψις] of the Eye-lids are pernicious." Eyes thus affected in Phrensies signify Convulsions succeeded by Death; for Convulsions, coming upon a Phrensy, are most pernicious; and mortal Phrensies terminate in Convulsions. Upon this Consideration the Author of the *Prorrhet. Lib.* 1. *T.* 71. if we may believe *Galen*, would have such

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Patients left to Nature, and treated them not with Medicines, when he ſays, " They who are mo-
" leſted with black Vomitings, have loſt their Ap-
" petite, are delirious, have a fierce Caſt of the
" Eyes, or have them cloſed, are not to be purged;
" for it would be deſtructive." In Conformity to this Precept, ſeveral of our moſt learned Phyſicians have made it a Rule to themſelves, never to preſcribe Cathartics for Patients in ſuch mortal Circumſtances, that the Art of Medicine might incur no Diſgrace by ſuch Practice.

The Fate of the Patient may, alſo, be predicted from the Magnitude of the Eyes, as when one appears bigger than the other; for, among other pernicious Signs mentioned by *Hippocrates*, *Lib.* 1. *Prognoſt.* one, we find, is for the Eyes to appear one greater than the other.

It is no leſs fatal, in a dangerous Diſorder, for the Eyes to appear greater than ordinary, as indicating the Head to be oppreſſed with a Redundance of Humours, and an Extinction of the Faculty; ſo that nothing reſiſts the Flux of the Humours to the Eyes. This Sign was obſerved by *Hippocrates*, 7 *Epid. T.* 100. in the Son of *Nicholaus*, whoſe right Eye, on the ſixth Day of his Illneſs, appeared bigger than ordinary, and the next Day he died: And the ſame Sign was obſerved by him in the Wife of *Hermoptolemus*, as ſhe lay dying, 7 *Epid. T.* 13.

Prominent or tumid Eyes are, alſo, enumerated by *Hippocrates*, *Lib.* 1. *Prognoſt.* among thoſe fatal Signs which appear in thoſe Parts. The Eyes are uſually thus affected from violent and inflammatory Pains of the Head, when, becoming replete with a Redundance of Heat and Spirits, they ſwell out, and appear prominent.

Hollowneſs of the Eyes, alſo, in acute Diſorders, unleſs it proceeds from ſome external Cauſe, within

within the Space of three or four Days, from the Time when the Patient was ſeized, is accounted *Lib. Prognoſt. T.* 15. a pernicious Sign. For ſuch a Symptom, as *Galen* teaches, in his Commentary on the Place, proceeds from an extreme Imbecillity, by which the Eye is deprived of all Manner of Nutrition; and this indicates the Violence of the Diſeaſe to be ſo extraordinary, that Nature muſt of Neceſſity ſink under it.

When the Eyes appear ſhrunk and quite withered, as if they were deſtitute of Aliment, it proceeds from an Imbecillity of the natural Heat, the ſmall Remains of which reſide only in the internal Parts, and are incapable of diffuſing themſelves to the external Parts, in Order to concoct a due Supply for the Nutrition of the Eye: To which it may be added, by the ſame Way of Reaſoning, that the few Spirits which remain in the Heart, and internal Parts, ceaſe to flow to the Eyes; whence thoſe Parts muſt of Neceſſity wither, dry up, and appear hollow; for *Hippocrates*, 7 *Epid. T.* 33. obſerved an Hollowneſs of the Eyes immediately conſequent upon a Wound in the Liver, and in many dying Perſons, ſometimes the right, ſometimes the left Eye, have been obſerved to fade and wither.

There are, alſo, certain Motions of the Eyes which are fatal Prognoſtics. Thus, for Inſtance, for the Eyes to be erect, or ſuſpended [ἐναιωρεύμενοι] which *Galen* interprets *unſtable*, or wavering, is accounted by *Hippocrates*, *Lib. Prognoſt.* a pernicious Sign, as portending, according to *Galen*, a Delirium or Trembling, either of which is fatal: But that the Phyſician may ſafely venture to paſs his Judgment, other Signs are, alſo, carefully to be conſulted; for, in Order to pronounce an Inſtability of the Eyes a mortal Prognoſtic, it is neceſſary, that it ſhould be attended with ſome other deadly Sign. *Galen, Com.* 2. *in* 1. *Prorrhet.*

rhet. more clearly explains this Property of Instability, by saying, that unstable Eyes are like an unstable, unmanageable Horse, always in Motion; whereas, on the contrary, what he calls *concrete* Eyes are fixed and immoveable. Hence the Author of the *Coac. Præ. T.* 227. justly concludes, that quick Motions and Twinklings of the Eyes are of as bad Signification, as a Fixedness thereof; whence they are denominated concrete, firm, stable, and immoveable.

That fixed Eyes are always a bad Sign, we are taught by the Author of the *Prorrhet. Lib.* 1. *T.* 46. where he says, ὄμμα ἀμαυρούμενον, φλαῦρον, καὶ τὸ πεπηγὸς καὶ ἀχλυῶδες, κακόν. "For the Eye to be "dull, vitiated, concrete, or contused (as *Galen* "explains the Word) is a bad Sign." He might more justly have said, a mortal Sign, because they are almost constantly fatal in acute Diseases, unless they happen to be so from some critical Cause. *Galen*, in his Commentary on this Place, says, that a Concretion of the Eyes proceeds from an Immobility of the Muscles which move the Eyes; which Immobility is owing either to a Resolution of all the Muscles, or to their equal Tension, whereby they are attracted to all Parts alike; or, lastly, to an extreme Imbecillity of the Muscles, which is certainly of most fatal Consequence, as are, also, the other Cases, as proceeding from a Convulsion of the Muscles, when the Origin of the Nerves is affected by the Violence of an acute Disease.

Galen, Com. 1. *in* 6 *Epid. T.* 27. affirms, that concrete, or immoveable Eyes, which *Hippocrates* very much condemns in the Text, (6 *Epid. Sect.* 1. *T.* 16.) indicate a perfect Extinction of that Faculty by which the Muscles, in their natural State were moved. *Hippocrates*, 5 *Epid. Text.* 50. in the Case of the fair Daughter of *Nerius*, who died of a Stroke on the Crown of the Head, given her by a young Woman, her Playfellow, with the Palm of

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the Hand, ſays, that, before her Death, one of her Eyes was affected with a Cataplexy, or Stupefaction [καταπλήξια.]

With reſpect to the Poſture of the Eyes, Diſtortions are very fatal Prognoſtics, unleſs they happen to be critical, as in the Caſe of the Patient in the Garden of *Dealces*, 3 *Epid. Sect.* 1. *Ægr.* 2. who, in the ninth Day of his Illneſs, was affected with a Diſtortion of the right Eye. *Hippocrates, Lib.* 1. *Prog. T.* 50. reckons Diſtortions among other pernicious Signs, belonging to the Eye. But it is neceſſary to make a Diſtinction here; for ſometimes, as *Galen* ſays, *Com.* 1. *in Prognoſt.* the Eyes are diſtorted through a Convulſion of the Muſcles which move them, as it often happens in Fevers, on Account of the Multitude of Humours, and, if no more than ſuch Redundance be indicated, nothing can with Certainty be predicted from the like Diſtortions of the Eyes. Generally, however, in acute Diſtempers, the Eyes are perverted and diſtorted, not from ſuch a Cauſe, but from the Diſeaſe affecting the Origin of the Nerves, which is the Brain, and therefore highly pernicious. We conclude then, that Perverſions and Diſtortions of the Eyes are conſtantly bad, when proceeding from the Multitude or Redundance of the Humour, which is leaſt to be dreaded; or from a Drineſs of the Muſcles: But if they happen in burning Fevers, or Phrenſies, they prognoſticate nothing but Death; eſpecially when they appear with Signs of the Extinction of the Faculty, indicating an extreme Imbecillity, or a Diminution or Deprivation of ſome Senſe.

There is a celebrated Aphoriſm of *Hippocrates*, to this Purpoſe, 4 *Aph.* 49. *In a continual Fever*, ſays he, *if the Lip, or Eye-brow, or Eye, or Noſe be diſtorted; if the Patient cannot ſee, or hear, and*

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is at the ſame Time very weak; whichever of theſe Signs appears, Death is near at Hand. And this is expreſſed more clearly, *Lib.* 1. *T.* 15. *Prog.* where it is ſaid, *If the Eye-lid, or Lip, or Noſe, be diſtorted, or corrugated, or livid, or pale, attended with ſome other Sign, you are to know, that Death approaches.* Diſtortions of the Eyes, therefore, are always a bad Sign, unleſs they happen critically, as was ſaid: They are not, however, neceſſarily mortal, which the divine *Hippocrates* ſeems to have well underſtood, 6 *Epid. Sect.* 1. *Aph.* 16. where he ſays, *a Circumtenſion* (or Tenſion of the Circumference) *of the Eye-lid is bad.* But a certain Judgment may be made from preceding, concomitant, and much better from ſucceeding Signs. Perverſions or Diſtortions of the Eyes are, alſo, bad, when they happen while the lower and weaker Parts are oppreſſed by the Force of the Diſeaſe, becauſe they indicate a Tranſlation of the Humours to the Brain, and nobler Parts, which ſeems to be the Sentiment of the Author of the 1 *Prorrhet.* 69. when he ſays, that "A Diſtortion of the "Eye, which is owing to a Recourſe of the Hu-"mours from the Loins, is a bad Sign." But ſuch Diſtortions, accompanied with other bad Signs, may be pronounced mortal: To which Purpoſe we read in the ſame Book, *Text.* 81. that "In burn-"ing Fevers, accompanied with ſuperficial and "general Refrigerations, and frequent watery and "bilious Stools, a Diſtortion of the Eyes is a bad "Sign; and the worſe, if the Patient labours alſo "under a Catochus." He might more juſtly have called it a mortal Sign; for general Refrigerations in burning Fevers, accompanied with Evacuations, by which the Patient is not at all relieved, but rather injured, are critical Signs, which determine nothing, and conſequently mortal, according to *Hippocrates* and *Galen*, who frequently tell us, that

that if the Patient finds no Relief from ſuch Things as might with Reaſon be expected to afford it, but is rather injured by them, and reduced to a worſe State than before, nothing but Death can be the Conſequence; for ſuch Symptoms are to be eſteemed critical Signs, which prove abortive, and anſwer no End, and are, of Conſequence, mortal: Whence, if Diſtortions of the Eyes are accompanied with theſe bad Symptoms beforementioned, it is not enough to call it a bad, but a fatal and deſtructive Sign. To this Purpoſe the Author of the *Prorrhet. Lib.* 1. *Text.* 89. tells us, that "In a "Diſtortion of the Eyes, accompanied with a Fe-"ver and Laſſitude, a Rigor is pernicious; and "a Coma, attended with the ſame Circumſtances, "is bad." Diſtortions of the Eyes, therefore, attended with bad Signs, and eſpecially bad critical Signs, are juſtly eſteemed mortal; but, if accompanied with mortal Signs, they ſignify the near Approach of Death. Of this Nature was the diſtorted Eye, obſerved by *Hippocrates*, in a Woman who died of an Abortion, 3 *Epid. Sect.* 1. *Ægr.* 11. *On the fourth Day*, ſays he, *ſhe was taken with a Delirium, attended with Fear and Sadneſs; her right Eye was diſtorted, ſhe had ſomewhat of a cold Sweat about her Head, and her Extremities were cold.* Theſe Circumſtances, in acute Diſeaſes, are mortal Signs.

We proceed therefore to examine, next, what are the bad Prognoſtics which may be drawn from a Cloſure, or Shutting of the Eyes: When therefore the Eyes, in acute Diſorders, continue cloſed, and cannot be opened, either from the Redundance of the Humours, pulling together and conglutinating the Muſcles of the Eyes and Eye-lids, or from a Drineſs and Reſolution of thoſe Muſcles, through Imbecillity, in acute Diſorders, it is always a mortal Sign: And, if at any Time it be not ſo, it is when it is critical,

cal, and followed by ſome good and remarkable Evacuations; otherwiſe it portends nothing but Death. To this Purpoſe the Author of the *Coac. Præſ. L.* 3 .*T.* 77. very finely expreſſes himſelf, where he ſays, that *they who lie ſpeechleſs under a continual Fever, with their Eyes cloſed, and now and then twinkling, if they happen to be ſeized with an Eruption of Blood from the Noſe, and Vomiting, ſucceeded by a Reſtoration of their Speech and Senſes, recover their Health; but, if no ſuch Thing happens, they fall into a Dyſpnœa, and die in a ſhort Time.* But it ſeldom happens, that a Cloſure of the Eyes is critically attended with the forementioned Symptoms, and never but in very robuſt Bodies; and therefore it is, for the moſt Part, a mortal Sign. A Cloſure of the Eyes, accompanied with other bad Signs, is always fatal, agreeable to *L.* 1.*Pror. T.* 71. above quoted. Here the Phyſician is adviſed, as ſome underſtand the Paſſage, to preſcribe nothing to his Patient, but attend the Event of the Prognoſtic; for ſuch a Cloſure of the Eyes, as *Galen* ſays, in his Comment on the Place, proceeds either from a Tenſion of the Muſcles which cloſe the Eyes, or the Imbecillity of thoſe which open them; both which are pernicious Symptoms.

To lie with the Eye-lids half cloſed, in acute Diſtempers is a bad and moſt fatal Prognoſtic. Of theſe ſpeaks *Hippocrates Lib.* 1. *Prog.T.*37. where he ſays, *We ought to conſider whether the Patient lies with his Eyes half cloſed in Sleep; for if any Part of the White appears between the unclofed Eye-lids, without a preceding Flux of the Belly, or Cathartic adminiſtered, and the Patient is not wont to ſleep in that Manner, it is an highly pernicious and mortal Sign.* This Sign I obſerved in my deareſt Wife, before ſhe died; and it proved fatal, though ſometimes ſhe uſed to ſleep in that Manner; but on this Occaſion it was attended with a Co-

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ma, Coldneſs of the Extremities, Reſtleſneſs, with Roughneſs and Blackneſs of the Tongue, unattended with Thirſt: This Symptom therefore, in acute Diſtempers, is always to be dreaded, according to the Author of *Coac. T.* 218. where he ſays, that *An Incurvation of the Margin of the Eye-lids, with a Fixedneſs, or continual Twinkling of the Eyes, or a Change in their Colour, or the Eye-lids not cloſed, is a pernicious Sign.*

The Colour of the Eyes is, alſo, to be regarded, in forming Prognoſtics of a bad Event: Thus, for the White of the Eye to appear red, unleſs it critically indicates an Hæmorrhage, is pernicious; but, when it is far from being critical, ſuch a Symptom, in acute Diſeaſes, is conſtantly bad. This Circumſtance, alſo, is reckoned by *Hippocrates, Lib. Prognoſt.* among pernicious Signs, becauſe, as *Galen* ſays in his Commentary, it proceeds either from a Redundance of Blood ſtagnating in the Brain, and its Membranes, or a conſiderable Inflammation in thoſe Parts, both which, in continual Fevers, are conſtantly pernicious; and not the leſs ſo, if this Redneſs appears attended with other bad Signs, on critical Days, or after what Manner ſoever, but worſt of all in high Phrenſies. Of this Symptom, among others, the Author of the *Coac. T.* 163. thus ſpeaks; *Concuſſions, or Shakings of the Head, with intenſe Redneſs of the Eyes, and a manifeſt Deliriouſneſs, are pernicious.* That this Redneſs is a bad Sign, and to be dreaded, we are taught 7 *Aph. Sect.* 3. becauſe, ſays *Galen* on the Place, a Redneſs of the Eyes indicates a conſiderable Inflammation of the Brain, or Stomach, both which are deſtructive, as the ſame Author teaches expreſsly, in his Comment on 1 *Prorrhet*, where he ſays, that *A Redneſs of the Eyes, coming on a continual Fever, ſhews either a Redundance of Blood in the Head, which is the Cauſe of this Redneſs, as in Lippitudes, or from an*

Inflammation of the Brain, or Stomach, which are diſtinguiſhed, in that, under the former, the Veins only in the white of the Eye appear red, whereas an Inflammation of the Stomach is attended, alſo, with Hiccups, or Vomiting. Hence *Hippocrates, Lib.* 1. *Prognoſt.* did not ſay ſimply, that a Redneſs of the Eyes, but of the Veins in the Whites of the Eyes, was of fatal Signification.

But the moſt pernicious and mortal Sign, according to the above cited Place of *Hippocrates*, is when theſe Veins appear livid, or black; for, as *Galen* on the Place has it, this Lividneſs or Blackneſs proceeds from Refrigeration, which indicates an Extinction of the natural Heat.

In the laſt Place, the bad Fate of the Patient may be predicted from the Excrements which appear in the Eyes. *Hippocrates, Lib.*1. *Prognoſt.* and 1 *Epid. Sect.* 2. among other fatal Signs belonging to the Eyes, in acute Diſeaſes reckons involuntary Tears. The Cauſe of ſuch Tears *Galen* refers either to ſome Lippitude, or to a Defluxion from the Head upon the Eyes; but, in acute Fevers, it muſt be imputed to the Imbecillity of the retentive Faculty, which is of moſt fatal Conſequence. Involuntary Tears therefore, in acute Diſeaſes, where they are not a Sign of a future Criſis, by an Hæmorrhage, eſpecially from the Noſe, portend inevitable Death, according to *Hippocrates*, 1 *Epid. Sect.* 2. Pituitous Excrements in the Eyes are, alſo, reckoned, *Lib.* 1. *Prognoſt.* among bad Signs. *Galen*, in his Comment, tells us, that this Humour, or Excrement, proceeds from a Defluxion, as is ſometimes the Caſe in a Lippitude, yet in acute Diſeaſes it indicates an Imbecillity of the natural Faculty, which is too weak to concoct the Humours neceſſary for the Eye. Sometimes there appears a Sort of hard and dry Excrement, which the Author of the 1 *Prorrhet. T.* 17. pronounces a Sign of

 a Phrenſy,

a Phrenſy, and *Galen*, in his Comments, writes, is ſometimes obſerved in Perſons under a Conſumption, when all the fleſhy Subſtance both in the Face, and on the Temples, is colliquated by an immoderate Heat, which Circumſtances are attended with an Hollowneſs of the Eyes; but, in a Phrenſy, this dry and cruſty Excrement appears without this Hollowneſs. Hence *Hippocrates*, 6 *Epid. Sect.* 1. *Text.* 16. among other bad Signs of the Eyes, reckons a Sort of Excrement like Chaff, or dried Spume, which, as *Galen* ſays, happens in acute Diſeaſes, from an extraordinary Drineſs and Imbecillity, very ſmall Tears falling from the Eyes, which, through the Imbecillity of the retentive Faculty, were unable to retain them; and theſe minute Drops, or Tears, being dried by the intenſe Heat of an inflamed Brain, are changed into thoſe Sorts of Excrements, which the *Greeks* call *Lema*, and are for the forementioned Reaſons accounted mortal Signs.

CHAP. VIII.

Of Preſages from the Cheeks, the Ears, the Noſe, the Lips, and from the Teeth.

AS the Obſervation of the Cheeks, Ears, Noſe, Lips, and Teeth, is ſometimes of great Uſe in forming Prognoſtics, ſo we ſhall treat of theſe Parts diſtinctly. But, as they are of no Uſe for Preſages, unleſs they are changed from their natural State; ſo we ſhall conſider them as changed: Though a want of Change in theſe ſignifies ſomething good, yet they never afford any certain Prognoſtic, ſince many die, who have theſe Parts but little changed from their natural State. But when they are changed, they contribute much to forming Prognoſtics. Now theſe Parts

may be changed, with respect to Colour, Figure, or Bulk; with respect to Colour, when they appear red, or livid, or black: Their appearing red, sometimes denotes an Inflammation of the Head, and sometimes a critical Defluxion; but the Prognostics, in these Cases, are to be distinguished by their peculiar Signs. When these Parts appear livid or black, it is always a bad Sign, because it indicates either a Suffocation, or Extinction of the Heat, or an excessive Putrefaction. When they are changed in Figure and Bulk, that is, when they are greatly extenuated, or seized with Convulsions, they contribute much to the forming Prognostics. But let us more accurately treat of each, beginning with the Cheeks, which, as we have already said, are for the most Part red, and sometimes livid or black. When the Cheeks are red, they denote either an internal Inflammation of the Head, or Lungs, or Pleura; or they signify, a future Crisis, or that Pus is generating in the Lungs. That Redness of the Cheeks which denotes an Inflammation of the Head, will not be alone, since the other Parts of the Face will be equally red; it will also be attended with the pathognomic Signs of an Inflammation of the Head, such as Pain and Heats; as happened in the Woman, labouring under the Quinsey, who lodged with *Meton*. Concerning this Woman *Hippocrates in 7 Epidem. Text.* 19. tells us, "That on the fourth "Day she was seized with Convulsions, a Priva- "tion of Voice, a Stertor, a grinding of the "Teeth, and a Redness of the Cheeks, but she "died on the fifth Day." That a Redness of the Cheeks is the peculiar Sign of a Peripneumony and Pleurisy, we learn from *Galen*, who in *Lib.* 2. *Prognost. Text.* 11. tells us, "That the "Cheeks become red, on Account of the Heat of "the Lungs, and the violent Cough, since both "these

" theſe Heat the Countenance, and whole Head; " becauſe, the Vapours ariſing from the Defluxion " on the Lungs, are conveyed to the Head." Hence, neither ſuch a Redneſs, nor that produced by an Empyema, can contribute any Thing to the Certainty of the Prognoſtic; for it generally happens, that in peripneumonic Patients, ſuch a Redneſs denotes a future Empyema, the Prognoſtic of which will depend upon its proper Signs. But becauſe few labouring under an Empyema recover, but generally die phthiſical, hence the Redneſs of the Cheeks prognoſticates an Empyema, Phthiſis, and Death. But that their Colour proceeds from this Cauſe, will be diſtinguiſhed by the proper Signs of an Empyema, which, according to *Hippocrates, in* 2 *Prognoſt. Text.* 61. are theſe following: " If in the Beginning the Fever does " not abate, but is leſs vehement in the Day than " in the Night, if the Sweats are copious, if there " is a Deſire of Coughing, and the expectorated " Matter is bad, if the Eyes become hollow, and " the Cheeks red, if the Nails of the Fingers are " crooked, if the Fingers, eſpecially at the Points, " become hot, if Tumors ariſe on the Feet, if " the Patient has no Appetite, and if Puſtules " break out upon the Body." In this State was the Wife of *Polycrates*, after ſhe had been afflicted with a Peripneumony, as we are informed in *Lib.* 7. *Epidem. Text.* 9. This was alſo the Caſe of *Meton*, who was pleuritic, as we are told in *Epidem. Lib.* 7. *Text.* 101. where it is ſaid, " That " ſometimes he was ſeized with gentle Heats, of " a ſhort Continuance, towards Night, he had " gentle Sweats; in the Fever, his Reſpiration was " thick, his Cheeks were red, he had a Senſe of " Weight about his Sides, Arm-pits, and Shoul- " ders, and was afflicted with a Cough." But in ſuch Patients as are afflicted with an Empyema and

recover, according to *Hippocrates*, in *Lib.* 2. *Prog.* " the Fever ſoon ceaſes, the Pus is laudable and " without a Mixture of Bile; the expectorated " Matter is copious and diſcharged with Eaſe, the " Appetite is good, and the Reſpiration regular." The Cheeks are alſo frequently rendered red, by means of a future critical Eruption of Blood from the Noſe: But this Redneſs will ſeize not only the Cheeks, but the whole Face, and eſpecially the Noſe. A Colour of this Kind was by *Galen* obſerved in a Roman Youth, who became feveriſh a little before an Eruption of Blood from the Noſe, as is obvious from the Book *de Præſag. ad Poſthum.* But when the Criſis is to happen either by an Hemorrhage, or by Sweat, other critical Signs will appear, the principal of which are the Appearance of Concoction in the Excrements, the Time of the Diſeaſe, which is called the State and Vigour of the Fever, an Increaſe of the Symptoms, or an Appearance of new ones. Theſe were the Signs obſerved in the Kinſwoman of *Teocles*, of whom *Hippocrates*, in 7. *Epidem. Text* 26. tells us, " that " ſhe laboured under an acute Fever, which on the " ſixth Day ſeemed to have ceaſed, ſhe bathed as if it " had left her, on the ſeventh Day one of her Cheeks " became red, towards the Evening her Fever be- " came violent, and ſhe was ſeized with a Fainting " and Privation of Voice. Soon after a Sweat " broke out, which afforded her Relief, and the " Diſeaſe was terminated on the ſeventh Day." Sometimes alſo the Cheeks appear livid or black, but if theſe Colours happen in Conjunction with other bad Signs, they prognoſticate that the Diſeaſe is mortal, ſince they denote an Extinction of the native Heat: But having already treated of theſe Colours, we now come to conſider the Ears, which in violent Diſeaſes appearing livid, contracted, cold, full of Pus, afflicted with an acute Pain or Ringing,

Ringing, contribute much to the Formation of Prognoſtics. In acute Diſeaſes, the Ears become livid and black, in Conſequence of the Extinction or Suffocation of the native Heat. Coldneſs and Contraction of the Ears are mortal Signs in acute Diſeaſes, as we are informed by *Hippocrates* in 1. *Prog. T.* 7. That acute Pains of the Ears are dangerous, we are told by the ſame *Hippocr.* in 3. *Progn.* where it is ſaid, " that an acute Pain of the Ears, ac-" companied with a continual and violent Fever, is " dangerous, becauſe it prognoſticates an approach-" ing Delirium and Death." But though ſuch Pains are not always obſerved to precede the moſt dangerous Diſeaſes, yet they always prove mortal in continual and acute Fevers, on account of the malignant Inflammation of the more noble Viſcera: I have ſeen many afflicted with theſe Symptoms die, and eſpecially my dear Wife *Gaudagnina*, who laboured under a burning malignant Fever; in the Beginning of which theſe acute Pains of the Ears appeared. Though therefore, according to *Hippocrates*, acute Pains of the Ears in acute Diſeaſes ſhew theſe Diſorders to be dangerous; yet it frequently happens that the Ears ſuppurate and critically diſcharge Pus, by which Means the Pain is removed. This was the Fate of the Son of *Emyres*, whoſe Ears, as we are told by *Hippocrates* in *Lib.* 4. *Epidem. Text* 40. diſcharging Pus critically, by that Means terminated the Diſeaſe; Ringing of the Ears is alſo of great Importance for making Prognoſtics in theſe Diſeaſes, but as we have treated of this Symptom, we ſhall only here obſerve a few Things with Relation to it. In the Beginning therefore of acute Diſeaſes, a Ringing of the Ears is a bad Sign, becauſe it denotes either an Inflammation of the Brain, or a future Delirium, or ſhews that the Bile rages in the Veins, by which Means the agitated Spirits are conveyed to the Head.

But in the Height or State of the Diſeaſe, when the Signs of Concoction appear, ſuch a Symptom often proves critical: Concerning this Sign we read in *Lib.* 4. *Coac. Præſag. Text.* 131. where it is ſaid, "that if in burning Fevers, a Ringing of the Ears, "with a Flaſhing of the Eyes, and Heavineſs of "the Noſtrils, ſurvene, the Patients become de-"lirious, unleſs an Eruption of Blood from the "Noſe happens." *Hippocrates* in 1. *Prognoſt. Text.* 15. tells us, "that if the Eyelids, the Lips, and "the Noſe are livid, and diſtorted with any other "bad Sign, we may know that Death is not far "off." By other bad Signs he means the Patients not ſeeing or hearing. Thus in *Sect.* 4. *Aph.* 49. he ſays, "that in Fevers which are not of the in-"termittent Kind if the Lips, the Noſe, the Eyes, "or Eye-Brows are diſtorted, if the Patient does "not ſee or does not hear, and his Strength is im-"paired, whichever of theſe happens, Death is not "far off." *Galen* in *Lib.* 3. *de Criſibus Cap.* 1. informs us, that ſometimes a Trembling of the Lips precede a Criſis by Vomit; this was obſerved in *Chærion* by *Hippocrates*, in *Epidem. Lib.* 3. *Ægr.* 5. And the ſame *Hippocrates*, in 6. *Epidem. Com.* 8. *Text.* 41. informs us, "that in tertian Fevers there "happens a critical Exulceration of the Lips." This critical Sign is now univerſally known, nor was *Avicenna* and the other *Arabians* ignorant of it. Theſe Parts are alſo ſometimes ſeized with critical Convulſions, but a Shuddering of the Teeth is not only by *Hippocrates*, in *Prorrhet. Lib.* 1. *Text.* 48. declared mortal, but I myſelf have often ſeen it ſo in Practice. *Hippocrates* in 1. *Prognoſt. Text.* 12. tells us, "that if a Perſon has a Shuddering of the "Teeth, who has not been accuſtomed to it from "his Infancy, a Delirium and Death are prognoſti-"cated; but in both Caſes, it is neceſſary to pre-"dict future Danger, and if a Patient already de-

"lirious,

" lirious, is ſeized with this Symptom, it is highly " fatal," and *Galen* in *Comment.* tells us, " that a " Grinding of the Teeth in Perſons before not " uſed to it, prognoſticates a Delirium; but if the " Patient is affected both with a Delirium and a " Grinding of the Teeth, Death is not far off." *Hippocrates*, in *Prorrhet. Lib.* 1. *Text.* 48. tells us, " that grinding of the Teeth in Perſons not ac- " cuſtomed to it is fatal." An Inſtance of this was ſeen in the Woman afflicted with a Quinſey, who lived with *Meton*, and who, as we are informed by *Hippocrates*, in *Lib.* 7. *Epidem. Text.* 20. had a Grinding of the Teeth the whole Day before ſhe died. A Grinding of the Teeth is therefore always fatal in acute Diſeaſes, becauſe it proceeds either from ſome Injury of the Origin of the Nerves, or from an Exſiccation of the temporal and maxillary Muſcles by an immoderate Heat, by which means they are affected with Convulſions, which, as we have elſewhere ſhewn, are incurable. But in 2. *Coac. Præſag. Text.* 240. we read that Convulſions of the Lips ſometimes denote a Diſcharge of bilious Matter by Stool, and *Galen* in *Lib.* 3. *de Criſibus* informs us, that a Trembling of the under Lip prognoſticates a Criſis by Vomit.

CHAP. IX.

Of Prognoſtics in acute Diſeaſes from the Tongue.

THE Inſpection of the Tongue, in acute Diſeaſes, is ſometimes of no ſmall Moment for predicting the Fate of the Patient. *Hippocrates*, 6 *Epid. Sect.* 5. *Aph.* 13. 15. ſays, " that the " Tongue is of the ſame Colour with the predo- " minant Humour," which he explains in the following Words. " The Tongue indicates the U- " rine [either properly ſo called, or the ſerous Part

" of

" of the Humours. *Galen.*] a paliſh yellow Tongue " [κλωραὶ γλῶσσαι] proceeds from Bile, which is the " Effect of a pinguious Matter; a red Tongue " from Blood; a black Tongue from black Bile; " a very dry Tongue from a fuliginous, aduſt " Matter; and a white Tongue from Phlegm." Hence it appears, that it is eaſy to know the predominant noxious Humour; for the Colour of the Tongue denotes the particular Humour, which cauſes the Diſorder. But we are to diſtinguiſh here, and conſider whether ſuch an Alteration of the Tongue proceeds from a Vapour or Humour, or from Meat or Drink, or Medicine, or a Diſtillation from the Head; for it may be owing to any one of theſe Cauſes. It will be neceſſary, therefore, to be well aſſured, that ſuch a Colour is not the Effect of any of the Cauſes above mentioned, but proceeds from Vapours or Humours conveyed from the Veins and Arteries to the Tongue, which is the more eaſily ſuſceptible of any Colour, becauſe it conſiſts of a flaccid, lax, and ſoft Subſtance, furniſhed with large Veins. *Galen*, on this ſubject, ſays very well in his Comment on the Place above quoted: " For, the Tongue, being furniſhed with " large Veins, and conſiſting of a looſe ſpungy Sub- " ſtance, is more adapted than hard and denſe Bo- " dies for the Admiſſion of ſerous Humours, and " for the Reception of any Colour from them after " the Manner of Wool." Thus much being premiſed, we come to conſider the Prognoſtics, which may be drawn from the Tongue.

In all acute Diſeaſes, it is beſt to have the Tongue like that of a Perſon in Health, provided it does not appear ſo from ſome external Cauſe, as Meat, Drink, Medicine, or a Defluxion from the Head. When the Body is in a due Temperament, the Tongue is moderately red, ſoft, of a well proportioned Magnitude, and void of all Defects, both

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with Respect to Taſt and Speech. In acute Diſorders therefore, and eſpecially in burning Fevers and a Synochus, for the Tongue to appear after that Manner, is a good Sign, for its rediſh Colour indicates the noxious and morbific Humour to be neither much in Quantity, nor very putrid and inflammatory; for, in either of theſe Caſes, the Tongue, of Neceſſity, would be either yellow, or Saffron coloured, or black, or intenſely red; ſince, as we have obſerved from *Hippocrates*, the Tongue cannot but be tinged and ſtained with the Vapours and Exhalations of the Humours, which are moſt predominant in the Body, whether they are bilious, aduſt, or pituitous. A ſoft Tongue, if its Softneſs be not immediately owing to the Meat, Drink, Medicine, or ſome Diſtillation from the Head, ſignifies that the Viſcera are not much affected with an Exceſs of Heat, for which Reaſon, alſo, the Patient is not very thirſty. A Softneſs of the Tongue, proceeding from a pituitous Diſtillation from the Head upon the Fauces, is known and diſtinguiſhed by proper Signs; the principal whereof are the immoderate Sleepineſs of the Patient, attended with an extraordinary Degree of Heat. A Diſtillation of this Kind, by irrigating the Tongue and Fauces, not only prevents the Tongue from being dry, but even mitigates the Thirſt. For this Reaſon it is ſaid by *Hippocrates Sect.* 4. *Aph.*54. that they who are affected with a Cough, are not very thirſty, and for the ſame Cauſe they ſpeak readily and freely. Thus you have the Deſcription of a Tongue not bad in acute Diſeaſes.

Sometimes the Alteration of the Tongue, from its natural State, is an Indication of a good Criſis; as, for Inſtance, in a ſevere Quinſey, when it appears highly inflamed, and very much ſwelled, by the Tranſlation of the Humours upon the Fauces and Tongue, or when it is affected with Convulſi-

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ons and Tremblings on the ſame Account. But ſuch Alterations are to be judged by proper critical Signs, which ought to precede them: And ſo much for a good Tongue, we come now to ſpeak of a bad one.

A Tongue any Way changed and vitiated, in Colour, Bigneſs, or Subſtance, is bad. In acute Diſeaſes that Tongue is bad with Reſpect to Colour, which is white, groſs and feculent: Theſe Symptoms of the Tongue, ſays *P. Alpinus*, I obſerved in an Epidemic Fever, which raged at *Genoa* ſome time ago, and they were a good Proof to me of a Redundance of pituitous and groſs Humours, and alſo of a great Heat in the Viſcera; nothing, however, with reſpect to Life or Death, could, with Certainty, be predicted from this Appearance. Wherefore, though this be no good Sign, as indicating the Diſeaſe to be fomented by a Redundance of groſs and pituitous, mixed with bilious and putrid Humours, yet, from this alone, without any other bad Symptoms, we can by no Means prognoſticate the Death of the Patient.

The next bad Tongue, with Reſpect to Colour, is the yellowiſh Tongue, which *Hippocrates* calls χλωρὰ, *Chlora*. This indicates the Diſeaſe to proceed from Redundance of Bile, and that putrefied, and by ſo much the more dangerous.

But this is not ſo dangerous as the black Tongue, which indicates an Abundance of aduſt Blood, which is more difficult to be corrected by Nature, than other Humours. Such a Tongue as this is proper to igneous and burning Fevers, attended with the higheſt Squalidneſs, and is always to be dreaded, but moſt of all when in Conjunction with other pernicious Signs: It is, alſo, a Symptom of peſtilential burning Fevers. Wherefore it is juſtly eſteemed a Symptom proper to acute Diſeaſes, as may very well be gathered from *Coac. T.* 229. where

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it is ſaid, " That an extraordinary Blackneſs of " the Tongue indicates a Criſis in fourteen Days." It is added, " The moſt dangerous is the black " and pale yellowiſh Tongue." Perhaps he means the yellowiſh inclining to black, and for good Reaſons, ſince it indicates, that the Bile, which before uſurped the Place of Blood and tinged the Tongue with a yellow Colour, is, by an Increaſe of the Inflammation, now become black, and the Blood aduſt, which is the worſt State of all.

Again, a black Tongue attended with a trembling, is condemned by the Author of the *Coac. Præſ. T.* 233. where he ſays, " That Tremblings of " the Tongue, in ſome Patients, are Cauſes of a " Looſeneſs; but, if the Tongue, alſo, becomes " black, it prognoſticates ſpeedy Death."

But a Tongue of a livid Colour is the moſt mortal Prognoſtic of all, becauſe ſuch a Colour is cauſed by an Alteration from a yellow, or red, to a black, on Account of an high Inflammation of ſome Bowel, and an Exceſs of extraneous Heat, attended with a Deficiency or Extinction of the innate natural Heat.

A great Redneſs of the Tongue is, alſo, obſerved by Phyſicians to be ſometimes a very bad Sign in Quinſeys and Peripneumonies, but its Malignity is increaſed and confirmed by other bad Signs. Such was the Tongue of the Woman labouring under a Quinſey, who lived with *Ariſtion*, 3 *Epid. Sect.* 1. *Ægr.* 7. and died on the fifth Day of her Illneſs; and ſuch was, alſo, the Caſe of the Son of *Bales*, 7 *Epid. Text.* 19. who died on the ninth Day.

In a Quinſey, the Tongue ſometimes increaſes in Bulk to ſuch a Degree, as hardly to be contained in the Mouth; but the Patient, in ſuch a Caſe, by a right Method of Treatment, has been often cured, though not a few have been ſuffocat-

ed. Many, on the contrary, have had their Tongues very conſiderably diminiſhed, their Moiſture being almoſt totally exhauſted by an exceſſive Heat; which ſhew the Fever to be very intenſe, and the Caſe very dangerous: But, to make a right Judgment, other Signs muſt, alſo, be conſidered.

A great and black Tongue is mortal, as indicating an Extinction of the natural Heat. This was the Caſe of the young Woman, 5 *Epid. Text.* 53. who, in the twentieth Year of her Age, took a Medicine to procure Abortion, and died on the fourth Day.

As to the Subſtance of the Tongue, ſome are remarkably ſoft, from imbibing much Humidity; others are very dry, rough, uneven, rugged, chapt, ulcerated; ſome appear with ſmall Tumors, ſome are hot, others cold to the Touch; ſome appear in a State anſwerable to the Meaſure of Thirſt, others are accompanied by no Thirſt at all.

The Tongue is dry and parched in all Fevers, but moſt of all in burning Fevers, and no leſs in ſuch as are accompanied with a Phrenſy. A dry and rough Tongue ſeems proper to burning Fevers, as *Galen* obſerves, *Com. in Prorrhet.* and a Tongue vehemently dry is a Sign of an intenſe Heat. In ſuch Caſes the Tongue becomes firſt dry and parched, then rough and uneven, ſoon after hard and rugged, and, at laſt, by the Violence of the Heat, chapt and ulcerated, in the ſame Manner as the Earth is affected with Chaps and Fiſſures, when immoderately dried by the vehement Heat of the Sun.

An hard and rugged Tongue is very bad, and proper to a Phrenſy, as it contracts a vehement Degree of Drineſs from the Vicinity of the Inflammation. Hence the Author of the *Prorrhet. Lib.* 1. *T.* 3. calls denſe, or hard, and dry Tongues, phrenetic; and of ſuch we read in *Coac. Præ. T.* 229.

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where it is ſaid, " That a Tongue, which in the " Beginning grows rugged, but maintains its Co- " lour, but, in the Progreſs of the Diſeaſe, be- " comes rough, livid, and chapt, is a mortal Sign." A Drineſs of the Tongue, however, without the Concurrence of other Signs, is of no Importance towards prognoſticating the Death of the Patient; for many who have had ſuch Tongues, when labouring under ſevere Diſtempers, have yet recovered. Inſtances of this we have in 1 *Epid. Sect.* 7. *Ægr.* 14. in the Virgin of *Lariſſa.*

If the Tongue be black, as well as dry, it is a more pernicious Sign: But we muſt not preſume from hence to predict the Death of the Patient without the Concurrence of other Signs; of which Nature were thoſe obſerved in Conjunction with a Blackneſs of the Tongue, by *Hippocrates*, in the Wife of *Dromeades*, 1 *Epid. Sect.* 3. *Ægr.* 11. and in him, who, being ſomewhat feveriſh, went to Supper, and drank freely afterwards, *Ægr.* 12. and in *Hermocrates*, 3 *Epid. Sect.* 1. *Ægr.* 2. and in many others. To have the Tongue thus dried in a Quinſey is a very bad Sign, as it indicates the Greatneſs of the internal Inflammation, which is what ſuffocates the Patient. Thus did the Tongue of the Woman, who died of a Quinſey on the fifth Day, appear to *Hippocrates*, 3 *Epid. Ægr.* 7.

The Tongue appearing with Chaps and Ulcerations, is an Indication of a more pernicious and malignant Inflammation. I have obſerved ſays *P. Alpinus*, in malignant Fevers, a ſqualid, chapt, and puſtulous Tongue, but the Patient did not always die, though *Rhaſis*, *Lib.* 10. *Cap.* 31. writes, " When Puſtules appear on the Tongue, of the " Bigneſs of Chiches, and the Fever is violent and " acute, the Patient will die on the Beginning of " the next Day." We may conclude, therefore, that a dry, hard, and very black Tongue, appear-

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ing with other bad Signs, is a fatal Presage; and most certainly, when the Patient, at the same Time that his Tongue is thus dried and exasperated, is insensible of Thirst; for this, in burning Fevers, is a most pernicious Sign, as indicating, according to *Galen*, in 1 *Epid.* either a Delirium, or an Extinction of the natural Faculty.

Whenever, then, we observe a dry and adust Tongue, without Thirst, we may venture to predict a Delirium, or Death; and the last of these, if such a Tongue be attended with pernicious Signs, of such a Nature as those which were observed by *Hippocrates*, in the Person who supped when he was feverish, and in *Hermocrates* beforementioned, who both died. Of the first of these, he says, " A certain Person, being somewhat fe-
" verish, went to Supper, and drank pretty freely;
" in the Night he vomited up every Thing, had
" an high Fever, attended with a Pain of the right
" Hypochondrium, and a slight [ὑπολάπαρος] In-
" flammation of the internal Parts; he was very
" restless all the Night; his Urine, at first, was
" thick, red, and deposited no Sediment; his
" Tongue was very dry, but he had no great
" Thirst." As to the Case of *Hermocrates*, after he had told us, that his Tongue, in the Beginning, was very much parched, that he was deaf, sleepless, but not very thirsty, and that his Urine was thick, and turbid, he adds afterwards, " On the twentieth
" Day, he had another Crisis" [spoken with Relation to the imperfect Crisis on the eleventh and fourteenth Days] " was free from a Fever, and
" had no Sweat, was averse to Food all the Time,
" and in his perfect Senses, but could not speak;
" his Tongue was very dry, but he had no Thirst;
" and he was sleepy, and somewhat affected with a
" Coma. About the twenty fourth Day the Fe-
" ver returned; he had a Looseness upon him,
" and

" and voided Abundance of thin Matter by Stool; " he had an high Fever the following Days, his " Tongue was extremely parched, and on the " twenty ſeventh Day he died." That the dry and aduſt Tongue of this Patient, unattended with Thirſt, was one of thoſe Symptoms, which indicate an Extinction of the Faculty, was demonſtrated by thoſe other ill Signs which attended it, as a perpetual loathing of Food, and the reſt. An aduſt, or extremely parched Tongue, therefore, in acute Diſeaſes, portends, as we ſaid, either a Delirium, or Death. We ought, however, to be cautious in paſſing our Judgment on the Life of the Patient, from theſe two Signs alone, ſince, as we before hinted, the Tongue may appear very dry and aduſt, and the Patient not be thirſty; and yet no Delirium, nor Extinction of the Faculty, be obſervable. This is owing to a Diſtillation of pituitous Humours from the Head, by which the Fauces are irrigated, and the Thirſt extinguiſhed. And we are certain, that this is the Cauſe, if there were no other Reaſon for it, than that the whole Tongue, in ſuch Caſes, is not dry; for, when in a Diſtillation of pituitous Humour, the whole Subſtance of the Tongue is not dried, but only the Part next the Root, the Tongue, after an Ablution with Humour, ſoon grows ſoft. To this may be added, that the Sick, in ſuch Caſes, are not perpetually wakeful, but have the Conveniency of Sleep; becauſe the ſuperior Parts of the Body abound with Humidity. Sometimes the Diſtillation upon the Fauces plainly diſcovers itſelf, by the Patient's frequent hawking and ſpitting, which are occaſioned by the copious Humour deſcending from the Head. To conclude, therefore, upon the whole, when the Tongue, in a burning Fever, where there is no Diſtillation of Humour from the Head, appears dry, rough, and

aduſt, and theſe Symptoms are unattended with Thirſt, we may ſafely venture to predict a Delirium, or an Extinction of the Faculty.

A dry Tongue feels ſometimes hot, ſometimes cold, to the Touch; the latter is a mortal Sign, becauſe it never happens but in violent Inflammations. A Tongue which feels hot and rough, is not ſo dangerous; but moſt threatning when it happens in the Beginning, as it did in the Caſe of *Hermocrates* beforementioned.

A tremulous or trembling Tongue is, alſo, a Symptom in acute Diſorders; and if it be conſequent upon a moſt intenſe Drineſs of the ſame Part, is mortal in the laſt Degree. A trembling of the Tongue is alſo an uſual Symptom in mortal Phrenſies, agreeably to the Author of the *Prorrhet. Lib.* 1. *T.* 20. who ſays, that " A trembling Tongue " is a Sign of a diſturbed Reaſon." For when the Brain labours under a Phrenſy, which is an hot Affection, the Tongue cannot be at reſt; on which Account it frequently happens, that the Sick ſtammer, and are not able to ſpeak out their Words, a little before their Death: And theſe two Symptoms, I mean Tremblings and Convulſions of the Tongue, are uſually obſerved by Phyſicians, in pernicious Phrenſies. Convulſions of the Tongue are a Conſequence of the Drineſs of the Muſcles of that Part, which are affected together with thoſe of the Head; as a trembling of the Voice is owing to a Weakneſs contracted from a Diſtemperature of the Humours; and all thoſe beforementioned Symptoms, which proceed from an intenſe Drineſs of the Brain, indicate a diſordered Mind. When this trembling and ſtammering of the Tongue proceeds from an univerſal Induration of the Muſcles, it is the more pernicious, as being cauſed by the immoderate Drineſs of the Brain.

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But here again, that we may not be mistaken in our Prognostics, we are to make a Distinction between the Causes of those Tremblings and Convulsions of the Tongue; for, if they proceed, as was observed, from an immoderate Drineſs of the Muſcles, and their Origins, and of the Nerves, it is certainly mortal; but, if the Tongue trembles and suffers Convulsions, when the muſcular and nervous Parts are replete with ſome Humour, it is no fatal Sign: For ſuch a Repletion is frequently the Cauſe of those Tremblings and convulsive Motions of the Tongue, which happen in the Beginning of Diſeaſes, and muſt be aſcribed to the Redundance of Humours, as it happened in the Caſe of *Pythion*, in the Beginning of the third Book of the Epidemics; and as it is ſometimes obſerved before a Criſis, in which Circumſtances they are juſtly reckoned among critical Signs. A Diſtinction, therefore, is to be made, with Reſpect to our Prognoſtication, between those Tremblings and Convulsions of the Tongue, which proceed from Drineſs, and are always fatal; and those very Symptoms, when cauſed by a Repletion; for those latter happen in the Beginnings of Diſtempers, or are attended with other critical Signs; but the other are only conſequent upon a very hot and dry Diſorder.

CHAP. X.

Of Preſages from the Fauces and Back.

THE Fauces, in Inflammations of the Throat, by Phyſicians called Quinſeys, are generally of great Importance in forming Prognoſtics; ſince, in ſuch Diſorders, it is a good Sign when the Fauces are obſerved to be tumid and inflamed, becauſe theſe Symptoms indicate that the Diſeaſe is

conveyed outwards. Thus *Hippocrates*, in *Lib.* 3. *Prognoſt.* tells us, " That it is the beſt Sign when " the Tumor and Redneſs appears externally." But, in the moſt acute and dangerous Quinſeys, it is not ſufficient in Order to prognoſticate Recovery, that the Fauces ſhould appear red and inflamed, ſince, in fatal Quinſeys, they often appear to be ſo, from a violent Inflammation, oppreſſing not only the internal Parts of the Throat, but alſo the external Fauces; in this Caſe, it is the beſt Sign, when not only the Fauces, but alſo the Breaſt and Neck appear red and inflamed. Thus *Hippocrates*, in *Lib.* 3. *Prognoſt. Text.* 20. tells us, " That theſe " Quinſeys, in which the Neck and Fauces are red, " are of longeſt Continuance, but they are of the " ſafeſt Kind, provided the Inflammation is not " conveyed inwards." And a little before he ſays, " But, theſe Quinſeys are the moſt fatal, and moſt " ſpeedily cut off the Patient, which produce no " conſiderable Effect on the Neck and Fauces, but " are accompanied with great Pain and Difficulty " of Reſpiration." Concerning theſe Pains, the Author of the *Coac. Præſag. Lib.* 2. *Sect.* 2. *Text.* 262. tells us, " That Pains of the Fauces without " Tumor, are ſuffocating." And *Hippocrates*, in *Sect.* 4. *Aph.* 34. tells us, " That if in a feveriſh " Patient, a Suffocation unexpectedly happens, " without any Tumor of the Fauces, it is mortal." But we now proceed to conſider the Back; the Inſpection of which is of great Uſe, not only in diſcovering the Nature, but alſo, forming the Prognoſtics of malignant, but eſpecially of acute Fevers.

In ſuch Fevers it is certain, that the Back is ſometimes obſerved full of ſmall Puſtules, like Millet, and ſometimes of ſmall Spots, like the Bites of Gnats, and theſe Spots are at other Times large and broad: The Appearance of theſe is a good Sign, when Nature critically expels the highly putrid

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Humours, but a bad and fatal Sign in other Cases. Both the Pustules and Spots are good, when they appear with the Signs of Concoction, and afford Relief; those of a red Colour are thought best, because they denote a large Quantity of Blood, which is not parched by excessive Heat. Those critical Pustules, therefore, are good, which appear with the Signs of Concoction, and after their Eruption are increased both in Number and Bulk. The Author of the *Coac. Præsag. in Text.* 114. tells us, "That in Persons labouring under continual Fe-"vers, Pustules arising all over the Body, are a "mortal Sign, unless a purulent Abscess succeeds." *Galen*, in *Lib.* 5. *Meth. Medend.* informs us, that in a certain Plague, all those escaped, over whose Bodies a great Number of black exanthematous Eruptions appeared; but, they rarely afford any Thing certain for prognosticating a Recovery, since they are generally fatal Signs. But they are always bad, when they indicate the most malignant Nature of the Disease; for they are Prognostics of pestilential Disorders, which was not unknown to *Thucydides*, who in the dreadful Plague of *Athens*, observed the Bodies of those infected with it, full of such Eruptions. The Eruptions of the worst Kind are the livid, and the black; since these, as we have elsewhere shewn, denote an excessive Putrefaction of the Humours, and an Extinction of the native Heat. It is a bad Sign, when these Eruptions are small, and return inwards, because it denotes that Nature, after she had begun to expel the Humours, was not powerful enough for that Purpose. Thus *Hippocrates*, in 1 *Epidem. Sect.* 2. tells us, "That small Efflorescences, such as do "not pronounce a sufficient Excretion, and such as "soon disappear, are bad." Those Pustules are also bad, which are not only small, but also such as are few in Number, and do not increase. Thus

Hippocrates, in *Epid. Lib.* 1. *Ægr.* 2. tells us of *Silenus*, "that he had a cold Sweat all over his Body, "which was covered with red, round and ſmall "Papulæ, like Vari, but produced no Abſceſs." Thoſe Puſtules and Effloreſcences are alſo fatal, which appear with other mortal Signs, ſuch as thoſe obſerved in *Silenus* and *Crito*, when at the Point of Death. *ibid. Ægr.* 9.

CHAP. XI.

Of Preſages from the Hypochondria, and firſt of ſuch as prognoſticate Recovery.

AS we are to conſider the Prognoſtics drawn from the Hypochondria, we ſhall firſt deter-termine what is meant by that Word; for *Galen* in 2. *Lib. Aphor.* 35. informs us, that the Epigaſtrium, that is the Abdomen, is divided into the Hypochondria, the Abdomen and lower Belly, by the *Greeks* called ἧτρον: But by the Hypochondria, he means that Part which reaches from the ſpurious Ribs to the Navel. The Author of *Prorrhet.* in *Lib.* 2. tells us more clearly, that the Parts on both Sides above the Navel, as far up as the ſpurious Ribs, are properly called the Hypochondria; from theſe Authorities we ſhall alſo define the Hypochondria to be thoſe external Parts of the Abdomen, which reach from the ſpurious Ribs to the Navel on both Sides; or thoſe cartilaginous Parts, ſituated above the empty Spaces, poſſeſſed by the Liver on the right, and by the Spleen on the left Side. But the Hypochondria taken in a more extenſive Senſe, comprehend all the Parts contained in that Region, ſuch as the Stomach, Liver, Spleen, and Diaphragm, in which Senſe the Author of *Prorrhet.* took the Word Hypochondria, when in *Lib.* 1. *T.* 56. he tells us, that Fevers ariſing from Pains of the

the Hypochondria are of the malignant Kind. When the Hypochondria are like to thoſe of Perſons in Health, it is a good Sign, but they may be rendered diſſimilar to theſe by Tenſions, Pains, Tumors and Suppurations: *Hippocrates*, in 1. *Prog.* tells us, " that the Hypochondria are in the moſt " laudable State, when they are free from Pain, " ſoft and equal, both on the right and left Sides." This Obſervation is juſt, ſince when the Hypochondria are in this Condition, they denote that no Part contained in them, ſuch as the Stomach and Diaphragm, are injured. Hence in acute Diſeaſes, it affords an excellent Prognoſtic of Recovery, when the Hypochondria on both Sides are ſoft, equal, and free from Pain, ſince theſe Circumſtances indicate that all the Parts contained in them are in a good Condition. With reſpect to full and extenuated Hypochondria, *Hippocrates*, in *Sect.* 2. *Aph.* 35. tells us, " that in every Diſeaſe, " it is good to have the Parts near the Navel and " lower Belly full, but bad when they are extenuat- " ed and waſted away." It would be an Advantage previouſly to know the State of the Hypochondria; ſince in Perſons in good Health, they are often unequal, and not equally ſoft. Hence the Hypochondria in the beſt ſeeming Condition, do not always prognoſticate Recovery, which however is ſometimes preſaged by ſuch as are unequal and tenſe, provided they reſemble themſelves when the Patient was in good Health. But it is not ſo good when they are found tenſe and unequal, though they reſemble themſelves when the Patient was in Health, as when they are found ſoft, equal, and free from Pain: The Tenſion, Inequality, Tumor, and Pain of the Hypochondria are bad Signs, unleſs they happen critically; for ſometimes before a Criſis, they are rendered tenſe, tumid or painful. With reſpect to critical Tenſions of the Hypochondria, the Author of *Prorrhet.*

rhet. in *Lib.* 1. *T.* 144. tells us, " that Palpitations " of the Abdomen, accompanied with a Kind of " longitudinal Tension of the Hypochondria, de- " note an Eruption of Blood," and a little after in *T.* 147. he tells us, " that a Tension of the Hy- " pochondria, accompanied with a Sense of Weight " in the Head, Deafness and Dazzling of the " Eyes, prognosticates an Hemorrhage." But *Galen*, in *Lib.* 3. *de Crisibus*, *Cap.* 12. says, that the peculiar Sign of an Hemorrage is a Tension of the Præcordia without Pain; whereas, when it is accompanied with Pain, it does not prognosticate an Hemorrhage, but an Inflammation. Hence we infer, that a Tension of the Hypochondria without Pain, as also Distention of them by a Redundance of Blood, may produce Pains, Heaviness, and Dazzling of the Eyes, an Heaviness of the Head, Deafness and Redness of the Face, as *Galen* in *Lib.* 3. *de Crisibus*, *T.* 20. and in *Lib. de Crisibus ad Posthumum* informs us; the Author of *Prorrhet.* in *Lib.* 1. *Text* 144. 146. 147. and *Prorrhet. Lib.* 2. tells us, that a Tension of the Hypochondria without Pain, is critical, and in a particular Manner denotes an Hemorrhage from the Nose. The Author of the *Coac. Præsag.* in *Lib.* 3. *Text* 289. tells us, that a Tension of the Hypochondria, accompanied with excessive Heat and Pain of the Head, denotes an Inflammation of the parotid Glands. *Hippocrates* in *Lib.* 1. *Prognost.* says, we are to judge of future critical Abscesses, from the Tension of the Hypochondria; for he tells us, " that the cri- " tical Abscesses happen in the inferior Parts of the " Ilia, when they are seized with an Inflammation, " whereas, the others happen towards their supe- " rior Parts where they are soft and without Pain." Hence it is obvious, that a Tension of the Hypochondria is good when it is the Sign of a future critical Evacuation. The same sometimes holds true of

of Tumors of the Hypochondria, though it rarely happens that a Tumor of them affords a good Prognostic. *Hippocrates* however in 1. *Prognost.* says, " that if the Tumor is soft, without Pain, " and yields to the Pressure of the Fingers, it ren- " ders the Crisis longer before it happens, but is " not very dangerous ;" and a little after he says, " Tumors of the Hypochondria, which are soft and " without Pain, produce a Crisis slowly, but are " not attended with great Danger." *Hippocrates*, in 1. *Prognost.* tells us, " that Tumors in the lower " Belly are less subject to become Abscesses, than " those of the Ilia; but an Hemorrhage from the " superior Parts is most generally to be expected." And in *Coac. Præsag. Text* 290. he tells us, " that " in Consequence of a bilious Tumor of the Hy- " pochondria, a large Respiration and acute Fever " affect the parotid Glands; " because the bilious Humours are carried up towards them. Pains of the Hypochondria are also critically produced by a Redundance of Blood distending them: The Signs of this, as has been already observed, are an acute Fever, an Heaviness of the Head, or Deafness, or a Dulness of the Eyes, or a Redness of the Face. It is also to be observed that Pains of the Hypochondria are not bad, when a Fever survenes; Thus *Hippocrates*, in *Sect.* 6. *Aph.* 40. tells us, " that " a Pain of the Hypochondria, without an Inflam- " mation, is terminated by a supervening Fever," and in *Coac. Præsag. Text.* 281. we are told, " that " Pains and Tumors of the Præcordia, if recent, " and without Inflammation, are removed by a " Rumbling of the Præcordia, especially if the " Flatulence is evacuated with the Fæces, and at- " tended with Eructations and a Discharge of U- " rine."

According to the same Author, in *Text.* 281. " a- " mong suppurated Abscesses, those are good

 " which

" which appear outwardly, poſſeſs a ſmall Space, " and are collected into an acute Cone ;" and afterwards he adds, " but among thoſe which are car- " ried inwards, the beſt are ſuch as have no Tu- " mor, Pain, or external Heat ; and the Suppura- " tions which are of a contrary Nature, are of the " worſt Kind." Having thus conſidered, what States of the Hypochondria afford a good Prognoſtic, we now come to treat of ſuch as are bad, and prognoſticate Death.

CHAP. XII.

Of bad States of the Hypochondria, which in acute Diſeaſes prognoſticate Death.

HIPPOCRATES, in *Lib.* 1. *Prognoſt. Text* 27. informs us, that in acute Diſorders, the Tenſion, Hardneſs, Pain and Inequality of the Hypochondria are bad ; and in *Sect.* 2. *Aph.* 35. he alſo tells us, that an Extenuation and Waſting of the Hypochondria are inauſpicious Signs. But that we may acquire a diſtincter Knowledge of the Tenſion, Hardneſs, Pain, Abſceſſes, and Suppurations of the Hypochondria, which when accompanied with other bad Signs, afford bad Preſages, we ſhall treat of each in particular and its ſeveral Cauſes, before we proceed to inveſtigate the Prognoſtics drawn from them ; for if we are ignorant of the Cauſes and Effects of theſe, we cannot form juſt Prognoſtics. The Hypochondria then are ſometimes tenſe, with ſuch Tumor and Hardneſs, as that they appear hard to the Touch. At other Times they appear tenſe without any Tumor, and Tenſions of this Kind are, by *Galen*, called empty and ſoft Tenſions ; *Hippocrates*, in *Lib.* 3. *Epidem. Ægr.* 2. tells us of *Hermocrates*, " that his Hypo- " chondria were gently tenſe," ſometimes he calls

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them ſoft, and ſometimes elevated Hypochondria, as in the Caſe of *Eraſinus*, mentioned in *Epidem. Lib.* 1. *Ægr.* 8. The Hypochondria of this Kind are tenſe, but at the ſame Time empty and without Tumor: As to the Figure, theſe Tenſions are ſometimes oblong, in the Direction of the Muſculi recti of the Abdomen, ſometimes broad, and ſometimes round in Form of a Moon; of which laſt Kind are the Tumors of the Liver. But the Hypochondria are rendered tenſe, with Hardneſs and Tumor, when the Muſcles, the convex Part of the Liver, the Spleen or the Stomach are inflamed, or when Muſcles are diſtended with flatulent Spirits, or a Redundance of Blood. The Tenſion without Hardneſs is alſo free from Pain, as has been obſerved in many who have had copious Hemorrhages from the Noſe. Tenſions proceeding from Flatulence are without Hardneſs and a Senſe of Weight, but thoſe proceeding from a Redundance of Blood are accompanied with both; the Tenſions proceeding from Inflammation are accompanied with Tumor, provided the Inflammation ſeizes the external Muſcles, the convex Part of the Liver, or the Spleen, or the Stomach; but let us conſider this more particularly. Though therefore it is ſaid, that an Inflammation of the Viſcera is indicated by all Tenſions of the Hypochondria, accompanied with Tumor, Hardneſs, and Pain; yet according to *Galen*, there are many Tenſions which are not hard, but ſoft, that is, hollow, empty and tumid, without an Inflammation of the Viſcera, and of theſe Tenſions we ſhall treat accurately. The ſoft or empty Tenſions, or ſuch as are without Tumor, are produced either by an Inflammation of the internal Viſcera, or a Drineſs of the Origin of the Nerves diſtributed to the Septum tranſverſum: In this Manner the Hypochondria are drawn upwards, for which Reaſon, *Hippocrates* juſtly calls them elevated

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Hypochondria. In this Manner they are indeed rendered tenſe, but when the Inflammation is internal, there is no Tumor or Hardneſs : *Galen*, in 3. *Epid. Com.* 2. *Text* 1. tells us, " that a ſoft Re-
" ſiſtance of the Hypochondria indicates that ſome
" of the Viſcera, the Liver, the Spleen, or the
" Diaphragm are inflamed." And in *Epid.* 1. when treating of the Tenſion of the Hypochondria of *Silenus*, he tells us, " that by the Inflammation
" of the Diaphragm, the Hypochondria, by Reaſon
" of their Continuity, were drawn upwards, and
" rendered tenſe without a Tumor," and in *Lib.* 3. *Epid. Ægr.* 2. he ſpeaks in this Manner of *Hermocrates*, " his right Hypocondrium was tenſe, but
" without Tumor, either becauſe the Inflammation
" of the Liver was not great, or only affected its
" lower Parts, without raiſing the external Parts
" into a Tumor." Hence it is obvious, that a ſoft Tenſion of the Hypochondria without Tumor, ariſes from an Inflammation of the Diaphragm, Liver and Spleen. But the Liver is not totally inflamed, but only its interior Part : Hence the Tenſion does not appear inflamed to the Touch, but ſoft and without Tumor ; but the Tenſion will never appear with the whole Liver inflamed or affected with a great Inflammation. We have already obſerved, that theſe Tenſions proceed not only from an Inflammation of the Viſcera, but alſo from an exceſſive Exſiccation. With reſpect to thoſe Cauſes, *Galen*, in 1. *Prog. T.* 30. ſpeaks in the following Manner ;
" ſometimes the Hypochondria are tenſe, without
" an Inflammation properly ſo called, either on ac-
" count not only of the Drineſs of that Part, but
" alſo of the Diaphragm, Ribs, Pleura and Præ-
" cordia, or on account of an Inflammation with
" Tumor in the Muſcles of the Ilia, without an In-
" flammation properly ſo called ; and this Tumor
" is painful." But *Galen*, in *Lib.* 3. *Epid. Com.*

3. *Text.*

3. *Text* 1. more clearly expreſſes the Cauſes of theſe ſoft Tenſions in the following Manner; "the Hy-"pochondria are rendered tenſe, when the adjacent "Parts are drawn and ſtretched by the Dia-"phragm." The Diaphragm itſelf is, in a Pleuriſy, ſometimes rendered tenſe, by the exceſſive Inflammation of the Pleura; ſometimes by the Origin of the Nerves, drawing to itſelf the Nerves diſtributed to the Diaphragm; and ſometimes by its own Inflammation. Having thus conſidered the Cauſes of Tenſions of the Hypochondria, we now come to treat of their Prognoſtics; *Hippocrates*, then, in *Lib.* 1. *Prognoſt. T.* 39. informs us, "that an "hard and painful Tumor in both Hypochondria, "or in the right, is a very bad Sign, ſince it de-"notes that Death is not far off." But *Galen*, in his Comment on this Paſſage, by Tumor, underſtands an Inflammation affecting the Liver, the Stomach, or the Spleen, by which many are ſuddenly cut off, eſpecially if it is great. But the Certainty of the Prognoſtic will be confirmed by other pernicious Signs: But when the Tumor is produced by an Inflammation of the Muſcles, it is rarely accounted mortal; but *Hippocrates* ſeems afterwards to mitigate that Aſſertion; that in the Beginning of Diſorders, hard Tumors, accompanied with Pain, prognoſticate a ſpeedy Death, by ſaying, that they did not preſage Death, unleſs they were great, and even then not always: Thus in *Lib.* 1. *Prognoſt. T.* 30. we are told, "that a "painful, hard and large Tumor of the Hypochon-"dria, prognoſticates a ſpeedy Death;" as if he had ſaid, Tumors of this Kind, that is, Inflammations of the Viſcera, if they are to prove mortal, ſoon cut off the Patient; for when they continue long, they rather denote a future Suppuration than Death, which *Hippocrates* had a little before aſſerted; "for, ſays he, if the Fever exceeds the

"twen-

" twentieth Day, and the Tumor does not ſubſide, " it is generally turned into a Suppuration." Hence Tumors of the Hypochondria, with Pain, which do not proceed from an Inflammation of the Muſcles, but of the Liver or Stomach, are dangerous, eſpecially if the Inflammation is great.

But in this Caſe, the Prognoſtic will be confirmed by the pathognomic Signs of theſe Inflammations, which indicate a Tumor, and which afterwards appear; for Death is prognoſticated by fatal Signs, ſuch as *Hippocrates* ſaw in *Apollonius*, of whom in *Lib.* 3. *Epidem. Com.* 3. *Ægr.* 13. he ſpeaks in the following Manner, " He was deprived of Sleep, " had his Inteſtines inflated, was afflicted with in- " ſatiable Thirſt, was comatous, had his right " Hypochondrium elevated with Tumor, and his " Extremities ſomewhat cold, was ſomewhat deli- " rious, and forgot every Thing he ſaid." Soft Tenſions of the Hypochondria, without Tumor, are no leſs dangerous, ſince they denote an Inflammation of the more noble Viſcera, or a Drineſs of the Origin of the Nerves, or of the Nerves deſcending to the Diaphragm, or of the Pleura. But though theſe Tenſions are always bad, yet they never prognoſticate Death, unleſs they appear in Conjunction with other bad Signs; ſince, all who have the Liver, Stomach, or Diaphragm inflamed, do not die. Hence, we muſt conſult the other fatal Signs, before we can prognoſticate Death. Thus in *Silenus*, *Lib.* 1. *Epid. Ægr.* 2. *Hermocrates*, *Epid. Lib.* 3. *Ægr.* 2. *Philiſta*, ibid. *Ægr.* 4. the Youth of *Melibœa*, and the young Man who lay in the *Forum Mendacium.* ibid. *Ægr.* 8. a ſoft Tenſion of the Hypochondria, together with bad and mortal Signs, were obſerved.

In like Manner, Pains of the Hypochondria, accompanied with the aforeſaid Tenſion, and other bad Signs, are generally mortal; as happened to the

the Wife of *Dromeades*, who, as we are told in *Epid.* 1. *Ægr.* 11. had a Pain of the Hypochondria on the third Day, discharged thick, turbid Urine, without a Sediment; she had also cold Sweats, all which are mortal Signs. Concerning the Patient who sup'd when very hot, *Hippocrates*, in *Lib.* 1. *Epid. Ægr.* 12. speaks in the following Manner, " A certain Man supped when hot, " drank liberally, and vomited all up again; in " the Night he was seized with an acute Fever, a " Pain of the right Hypochondrium, and a soft " Inflammation of the external Parts, so that he " passed the Night uneasily; his Urine was at " first red, thick, and had no Sediment; his " Tongue was dry, but he was not very thirsty: " These were the Signs of a violent Inflammation, " which soon proved mortal to him." The Author of *Prorrhet. Lib.* 1. *Text.* 56. tells us, " That Fevers arising from Pains of the Hypo- " chondria, are of the malignant Kind." But *Galen* says, all Fevers of this Kind are not malignant, but only such as arise from an Inflammation of some of the Viscera, and are acute, or accompanied with bad Signs. These Tensions and Pains are, also, bad and mortal, when they remain after any copious Evacuation. Thus in *Coac. Præsag. Text.* 282. we are told, " That " Pains of the Hypochondria are bad, even when " the Body is soluble." This is observable in the Patients lately mentioned; for in *Silenus*, mentioned in *Epidem.* 1. *Ægr.* 2. there was a Tension of the Hypochondria, accompanied with thin, blackish Stools. And *Erasinus*, mentioned in *Epid. Lib.* 1. *Ægr.* 8. had a Tension of the Hypochondria, accompanied with Sweat. These are the Prognostics drawn from bad Tensions of the Hypochondria, Suppurations of which are, also, bad, when accompanied with copious, bilious Stools,

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great Loathings, Syncopes and Vomitings; especially when the Fever is not diminished, nor the Patient relieved: We have already observed, that these Tumors, which continue long with the Fever, terminate in a Suppuration. Thus *Hippocrates*, in 1 *Prognost. T.* 35. tells us, " That if the " Fever exceed the twentieth Day, and the Tu- " mor does not subside, the Tumor is suppurat- " ed." And a little after he adds, " But if the " Fever exceeds the sixtieth Day, and the Tumor " does not subside, it indicates that both this Tu- " mor, and the others of the Abdomen, will be " suppurated." Concerning the Prognostics of these, the Author of *Coac. Præsag.* in *Text.* 281. speaks in the following Manner; " Those Ab- " scesses are mortal, which are conveyed inwards, " but when they suppurate externally, they are " laudable, especially when they possess a small " Space, and resemble an acute Cone. It is also " a good Sign, when those which were going in- " wards afterwards appear on the Surface, with- " out Pain and Heat; but the Suppurations of " another Nature, are of the worst Kind." In Order also to know bad Suppurations, it is to be observed, that Tumor, Pain, or Heat in the Hypochondria indicate that the Inflammation is latent, but not removed: If therefore, after a Suppuration, the Hypochondria remain tense, and are not relaxed, and especially if they are painful and hot, it is a bad and mortal Sign. But it is of all others the worst Sign, when the Patient is not relieved, but grows worse, after a copious Evacuation of Pus; for such an Evacuation is not of the truly critical Kind, but proves mortal; especially if it appears in Conjunction with Weaknesses, or any other bad Sign. These are the Prognostics drawn from Suppurations of the Hypochondria. *Hippocrates*, in *Lib.* 1. *Prognost. Text.* 31 and 32. informs

forms us, " That a Pulſation in the Hypochon-
" dria indicates Perturbation of Mind, and a Deli-
" rium." But the Eyes of ſuch Patients are to be carefully viewed, for if they roll faſt, a Delirium is prognoſticated. Thus in *Coac. Præſ. Text.* 282. we are told, " That a Pulſation in the Hy-
" pochondria denotes a Perturbation of Mind,
" and a Delirium, eſpecially if the Eyes roll faſt." This probably happens, either on Account of an Inflammation of the Diaphragm, or on Account of an Effervescence of the Humours, from which many Flatulences are raiſed, which aſcending copiouſly to the Head, and heating and vellicating the Membranes of the Brain, produce a Delirium. This Kind of Pulſation is generally bad, though it is ſometimes good, when it precedes a Criſis; but this is by critical Signs diſtinguiſhed from that Pulſation which is bad. But when together with this Pulſation other bad Signs appear, it is mortal. Thus in *Coac. Præſag. Text.* 283. we are told,
" That a Pain of the Mouth of the Stomach, and
" a Pulſation of the Hypochondria, after the Fe-
" ver is removed, are bad Signs at all Times,
" even when ſucceeded by a gentle Sweat." Having conſidered the bad States of the Hypochondria, we ſhould now proceed to treat of the Prognoſtics from the Liver and Spleen; but this is in a great Meaſure already done in this Chapter.

CHAP. XIII.

Of Preſages from the ignoble Parts of the Body.

IN acute Diſeaſes, the Obſervation both of the noble and ignoble Parts are of great Importance in prognoſticating their Events. This is certainly true, ſince, according to *Galen*, the noble

Parts cannot long bear violent Diſeaſes; for when they labour under ſevere Diſtempers, it is certain, that all the Faculties are either diminiſhed or deſtroyed. In acute Diſorders, when the putrid Humours are conveyed to the noble Parts, Death generally ſucceeds; but when they are tranſlated from the noble to the ignoble Parts, Recovery is the Effect. Hence *Hippocrates* aſſerted, that the Prognoſtics of acute Diſeaſes were by no means certain, becauſe we cannot know whether the highly putrid Humours, either thin or turgeſcent, will be conveyed to a noble or ignoble Member of the Body. But this much is certain, that if the Humours are tranſlated to a principal Part, Life is endangered, and Death generally produced; whereas Recovery is procured, when they are conveyed to the ignoble Parts, and ſuch as are remote from the principal. Hence in acute Diſeaſes the Obſervation of all theſe Parts is not only uſeful, but abſolutely neceſſary for forming Prognoſtics. By the principal Parts we commonly underſtand the Brain, the Liver, the Heart, the Stomach, the Gullet, the Aſpera Arteria, the Lungs, the Diaphragm, the ſmall Inteſtines, and the Pleura. We call theſe principal or noble Parts, either becauſe they are ſubſervient to the principal Parts, or lie next to them, or have a near Connection with them. The ignoble Parts are the Skin, the Extremities, the Ears, the Arm-pits, and the Groin. In all theſe, therefore, it is uſeful there ſhould be ſomething ſeen in acute Diſeaſes, which indicates that the Diſeaſe is conveyed to them. The Diſorders of this Kind are long critical Pains; which we have accurately deſcribed in Book 2. and ſhewn how, in the ignoble Parts, they ſometimes critically produce a Recovery. Long continued Tumors alſo of the Skin, Feet, Legs, and other Parts, are of a laudable Kind, provided they appear critically, and with

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the Signs of Concoction. Thus *Hippocrates*, in *Lib.* 2. *Prognoſt. Text.* 78. tells us, " That in ve-
" hement and dangerous Diſorders all Abſceſſes,
" breaking out on the Legs, are beneficial." And *Galen* affirms, that in violent Diſorders of the Lungs, Abſceſſes appearing in the Legs are thought good; for according to *Hippocrates*, in *Lib. de morbis vulgaribus Sect.* 1. among good Abſceſſes, thoſe are the beſt which happen fartheſt from the Seat of the Diſorder, and eſpecially when they appear with the Signs of Concoction: For this Reaſon critical Tumors in the Legs, the Groin, the Teſticles, the Arm-pits, and behind the Ears, are to be commended. But of theſe we ſhall treat more accurately afterwards. Puſtules alſo, exanthematous Eruptions, Small-pox, Meaſles, Itch, and Scabs, are alſo of a laudable Kind, when the Signs of Concoction have previouſly appeared in the Excrements. Whereas all theſe Diſorders, when ſymptomatical and not critical, are bad in any of the ignoble Parts, becauſe they are thrown out by the Strength of the Diſeaſe, and not by the Force of Nature. But of each of theſe we ſhall treat more accurately, when we conſider the Prognoſtics ariſing from all Tumors. In acute Diſeaſes, the parotid Glands behind the Ears are often inflamed and tumid, and ſometimes thoſe in the Arm-pits, Groin and Teſticles; if theſe Tumors appear in the Beginning of a Fever, or if a Fever ſucceeds them, it is a bad Sign, and indicates that the Diſorder is of the malignant Kind. But if they appear with a Concoction of the Humours, they generally prognoſticate a Recovery; becauſe Nature has relieved the noble Viſcera, by protruding the noxious Humours to the ignoble Parts. The beſt of theſe Tumors are ſuch as continue long, are ſtreight, increaſe gradually, and are neither too large nor too

ſmall; for the Tumors wanting theſe Marks are of all others the worſt; as alſo ſuch as ſoon diſappear after their Eruption. But of theſe we ſhall treat more fully afterwards, and at preſent conſider the Prognoſtics drawn from the Extremities of the Body.

CHAP. XIV.

Of Prognoſtics in acute Diſeaſes taken from the Extremities.

THE extreme Parts, according to *Galen*, in his *Comment* on the *Prognoſtics*, are the Ears, Noſe, Hands, and Feet; and theſe Parts, in acute Diſeaſes, often afford great Matter for Prognoſtication, ſince Death never happens without ſome Alteration in thoſe Parts from their natural State: For, in dying Perſons, the extreme Parts are neceſſarily refrigerated, and turn livid and black; and oftentimes the Hands and Feet are ſubject to preternatural and irregular Motions. An Heat of the Excrements, therefore, is never a bad Sign; but their Coldneſs is always bad, and worſt of all when the inward Parts are hot, and parched with Drought. This is well expreſſed by *Celſus* from *Hippocrates*: "When the outward Parts, ſays he, are cold, and "the inward Parts ſo hot, as to cauſe a Thirſt, "the Fever not at all remitting, it is a mortal "Prognoſtic." And, though a Coldneſs of the extreme Parts in continual Fevers be always a formidable Symptom, it is moſt pernicious when it continues with little or no Abatement; and, if theſe Parts at the ſame Time appear livid or black, mortal in a very high Degree.

Hippocrates, ſpeaking of Patients under acute Fevers, from a predominant Conſtitution of the Air,

Air, 1 *Epid. Sect.* 1. tells us, " That their ex-
" treme Parts were very much refrigerated, ſo that
" it was ſcarce poſſible to excite any Heat in
" them." And, a little after, *Sect.* 2. deſcribing the Symptoms of a continual Fever, from a particular Conſtitution of the Seaſon, he ſays, among the Reſt, " That the Extremities were remarka-
" bly cold, and it was very difficult to recall the
" Heat into them." The ſame was obſerved of *Philiſcus*, when given over, 1 *Epid. Sect.* 1. *Ægr.* 1.
" His extreme Parts every where refrigerated, and
" the Heat never returned into them."

In like Manner, Prognoſtics are to be drawn from the Colour of the Extremities; for their beſt Colour is the ſame as when the Patients were ſound in Health, though it may perhaps, under a Criſis, be ſometimes red and inflamed, from the Blood then ſettling in thoſe Parts; but the worſt and moſt fatal Colour is the livid and black.

In acute Diſeaſes, then, for the extreme Parts to appear black or livid, is a mortal Prognoſtic, as indicating either an Extinction of the Heat, or the Height of Putrefaction in the Humours. Theſe Colours of the Extremities were obſerved by *Hippocrates*, in *Philiſcus* and *Silenus*, when dying, of the former of whom he ſays, 1 *Epid. Ægr.* 1. " That he was in a cold Sweat, and his
" extreme Parts livid;" and of *Silenus*, *ibid. Ægr.* 2. " That on the ſixth Day he ſweated a little about
" his Head; that his Extremities were cold and
" livid, and that he was very reſtleſs."

For the Hands and Feet to be moved and agitated after an odd and diſorderly Manner, is condemned by *Hippocrates*, *Lib.* 1. *Prognoſt.* where he ſays, " That they who under an acute Fever,
" Delirium, Peripneumony, or Cephalalgia, wave
" their Hands at every turn before their Face, or

" pick Motes, or pull Hairs out of the Clothes, " or pick Straws from the Wall, are all in a " bad and very dangerous State." It is a Symptom no leſs to be dreaded, for the Patient to have his Feet wilfully naked, and not warm; of which we read, *Ibid.* " If the Sick have his Feet " naked, without any conſiderable Heat, and " throws about his Hands, Neck, and Legs, in " a looſe, diſorderly Manner, it is a bad Sign, as " indicating an Anxiety."

OF THE PRESAGES OF LIFE and DEATH.

BOOK VI.

CHAP. I.

Concerning what Things are to be treated of in this Book; and first, of the Prognostics drawn from the Concoction and Crudity of the Humours.

AS the Strength and Weakness of the natural Power depend upon four Functions, and especially on the concoctive and excretive Functions; because to these all the Concoctions and Excretions of the Excrements, by the Physicians called Crises, are referred; and all of these are to be accurately observed, in order to form Prognostics: So we shall pursue the same Order observed in treating of the natural Faculty; and first, consider the Prognostics drawn from Concoctions, Crudities, Excretions, critical Days, and Crises; beginning with the Concoction and Crudity of the

Excrements, which contribute ſo much to the Formation of Prognoſtics, that without a Knowledge of them, no one can affirm any Thing certain with reſpect to Death or Recovery: That we may therefore form Prognoſtics with the greater Certainty, we muſt previouſly know what Concoction and Crudity are, in how many Acceptations they are taken by Phyſicians, and how they happen. *Galen* in *Lib.* 1. *Epidem.* tells us, "That there is a "certain Concoction of preternatural Humours, "which is the Maturation of the Diſeaſe; and "another Concoction, which is the Converſion of "the Thing concocted into the Subſtance of the "Body concocting." But this is more clearly expreſſed in *Lib.* 3 *de Natur. human. Text.* 4. and in *Lib.* . *de Symptomat. Different. Cap.* 4. where he tells us, "That Concoction is the Alteration of "any Subſtance, or its Change or Alteration into "a Quality ſuitable and proper for the Thing "which is nouriſhed, which the *Greeks* call πέψις." This is what the Phyſicians properly call Concoction, which they do not ſo much conſider for Prognoſtics, as the other, which is attended with highly bilious and putrid Humours, and which is an Alteration, not of the Aliments, but of the noxious Humours, few or none of which are converted into Aliments. This is the Concoction which in acute Diſeaſes is principally obſerved by Phyſicians, in Order to form Prognoſtics. Hence it is, that we call Excrements, in any Diſeaſe, concocted and crude. *Galen* in *Lib.* 2. *de Vict. Rat. in acutis*, calls bilious Humours crude, by the *Greeks* called ἰχῶρες, which when changed, cannot nouriſh. *Hippocrates* called theſe Excrements, which were ſubdued by Nature, concocted; and ſuch as were not ſubdued, crude. *Galen in* 6 *Epidem. Com.* 2. *Text.* 9. calls the Concoction of the bilious Humours a Change of them into a laudable Quality, and a middle Kind of Tem-

Temperament. And in *Lib.* 2. *de Rat. Vict. in acut.* T. 14. he tells us, "That every Humour is concoct-
" ed, which being duly changed by the natural Heat
" nourishes, or which, if it is not a nutritious Humour,
" is by Nature subdued and changed to its natural
" State." Thus the Bile, when become highly yellow, acrid, and fetid is said to be concocted, when it becomes less acrid, paler, and less fetid. These Concoctions of the bilious and putrid Humours are produced by Nature, whereas Crudities are generated, when the Disease is more powerful than Natrue, as we are informed by *Galen*, in *Lib. de Constit. Art. Med.* But let us now consider the Prognostics drawn from Concoction and Crudity; since we have, therefore, said, that Concoction in the Excrements demonstrates the Prevalence of Nature, hence we affirm, that nothing is more salutary than concocted Excrements. *Galen* also, in *Lib. de Art. Medicinal. Cap.* 83. affirms, that Concoction is among the salutary Signs. In *Lib.* 1. *Aphorism.* he tells us, " That the Signs of Con-
" coction are perpetually good, and never bad. *Hippocrates*, in *Epidem. Lib.* 1. *Sect.* 2. tells us,
" That all Maturations of the Excrements are
" always seasonable and good, since they denote
" the Quickness of the Crisis, and a Recovery. And *Galen* in *Lib. de Constit. Art. Med.* affirms,
" That no Disease can ever be terminated, unless
" the Signs of Concoction are previously observ-
" ed in the Excrements." In Diseases of the Abdomen, the Excrements discharged by Stool ought always to appear concocted. Thus *Hippocrates*, in 2 *Prognost.* tells us, "That those Excrements
" are best which are soft, consistent, discharged
" at the Hours usual, when the Patient was in
" Health, and whose Quantity is proportioned to
" the Aliments taken; for when the Stools are
" such, the Abdomen is in a due State." *Ga-*

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en adds, that the Stools ought to be of a reddiſh Colour, and not very fetid. In acute Fevers, and Inflammations of the Liver, Stomach, Diaphragm, and Spleen, the Urine will appear concocted, if the Diſeaſe tends to a favourable Iſſue. Thus *Hippocrates*, in 2. *Prognoſt.* tells us, " that the " Urine is beſt when its Sediment is white, ſmooth " and equal all the Time, till the Criſis happens, " becauſe ſuch an Urine indicates the Recovery of " the Patient, and the Shortneſs of the Diſeaſe." In Diſeaſes of the Breaſt and Lungs, the Spit expectorated ought to be concocted: Thus *Hippocrates*, in 2. *Prognoſt. Text* 34. tells us, " that in " Diſorders about the Lungs or Ribs it is a good " Sign, when Spit with a large Quantity of yel- " low Matter in it is ſpeedily expectorated. *Galen*, in *Lib.* 1. *Aph.* affirms, that concocted Spit is white, ſmooth, equal, not too thick, nor too thin, but eaſily expectorated; let theſe Prognoſtics at preſent ſuffice, with reſpect to the Concoction of Urine, Stools and Spit; but we ſhall afterwards treat more accurately of theſe, and all the other Excrements. Hence we may infer, that Concoction in the Excrements is never bad, but always good: Beſides, Concoction is of ſuch Importance in prognoſticating Recovery, that even when bad Signs appear with it, they are not greatly to be dreaded; for Watchings, Deliriums, Vertigoes, Comas, Pains, Convulſions, Tremors, Anxieties, a difficult Reſpiration, and other Diſorders, which are of themſelves bad, are often, when accompanied with the Signs of Concoction, the Marks of a ſalutary, future Criſis. All the Excretions then appearing after the Signs of Concoction are ſalutary, and proceed from the Prevalence of Nature over the Diſeaſe: Thus *Galen*, in 1. *Epidem. Com.* 2. *T.* 45. tells us, " that when after the " Concoction of the Diſeaſe, any peccant Hu-

" mour

" mour is evacuated, then the Body is purged by " Nature;" and a little after he adds, " and for this " Reason, the black Bile, and all other Humours of " the same Kind, indicate an happy Evacuation, " when in the Progress of the Disease they appear " with the Signs of Concoction." Hence *Hippocrates*, in *Lib. 4. de Vict. Rat. T.* 10. tells us, " that when " there is an Hemorrhage from the Nose the Dis- " ease is terminated, as also when laudable, critical " Sweats happen, and the Urine is white, and has " a thick, smooth Sediment:" But the Signs of Concoction are not observed at the Beginning, for then the Disease is perfectly crude, nor in the Augmentation, because then the Concoction is incomplete, but in the State or Height of the Disease. *Galen* in *Lib.* 1. *Aphorism. Aph.* 22. tell us, " that the Signs of Concoction are never observed " in the Beginning of the Disease;" and in *Lib. de Constit. Art. Med. Cap.* 18. he speaks in the following Manner, " Diseases of certain Parts are " known from their particular Excrements; for in " Disorders of the Stomach, Liver, and Mesen- " tery, concocted Stools are salutary, and when " the Urine is concocted, it is a good Sign in Dis- " orders of the Veins, Kidneys and Bladder; when " the Spit expectorated is concocted, it is a lau- " dable Sign in Disorders of the Thorax and Lungs. " Concocted Matter thrown up in vomiting is good " in Affections of the Breast and Stomach, and it " is good when, in Disorders of the Brain, a con- " cocted Matter is discharged by the Palate, Nose, " and Ears." But we now proceed to consider the Prognostics drawn from Crudity, which is generally bad; for though when this appears Crises, and the Terminations of Diseases happen, yet this is so rare and uncertain, that no sure Prognostic of Recovery can be formed from it. Thus *Hippocrates* in 1. *Epid. Sect.* 2. tells us, " that crude

" and

" and uncocted Excrements and Humours convert-
" ed into malignant Abscesses, either denote that
" there will be no Crisis, or prognosticate Pains,
" the Length of the Disease, or a Relapse;" of such Importance to Prognostics are the Signs of Crudity, in the Urine, Stools, and other Excrements, that never any good Symptom appears with them; for in acute Disorders, whilst the Crudity lasts, bad Symptoms, such as, Watchings, Deliriums, Anxieties, difficult Respiration, a bad Pulse, and other unlucky Symptoms, prognosticate Death: Nay whilst the Crudity remains good Signs, such as the Alteration of the Disease, Sweats, Eruptions of Blood, Vomitings, copious Stools, and Discharges of Urine, prognosticate no good: Nor are we, according to *Hippocrates* in *Sect.* 2. *Aph.* 27: " to trust to Symptoms, produced without any ap-
" parent Cause;" we are not therefore to trust to good Signs, accompanied with Crudity, because no certain Prognostic can be drawn from them. Hence *Galen*, in *Lib.* 1. *de Crisibus*, tells us, that the critical Signs do not appear in the Beginning, because then all the Humours are crude; and in *Lib.* 4. *Aph.* 22. he tells us, that when a Disease begins there is no Evacuation; in *Lib.* 1. *Aphor.* he also tells us, that a Crisis, happening with Crudity, either prognosticates Death, or the Length of the Disease. A Crisis then never happens in the Beginning of the Disease, because then the Humours are crude, but in the State or Decline, when they are concocted and resolved: In acute Diseases therefore, especially Fevers and Inflammations, we are to attend to the Concoction or Crudity of the Urine and Stools; and if any Parts of the Lungs or Thorax are injured, we are to observe the Spit expectorated by the Patient. Crude Urine, Stools, and Spit, are known by their being changed from their natural State; but we shall afterwards be more full in giving

ing Directions for knowing the Concoction or Crudity of each of these : It is sufficient here to observe, that crude Excrements are such as are changed, both with respect to Substance and Contents, from what they were in a State of Health, and such as want the fore-mentioned Signs of Concoction. But we now come to treat of the Prognostics taken from Excretions in general, after which, we shall consider those arising from each particular Excretion.

CHAP. II.

Of Prognostics from Excretions.

AS we are to treat of Excretions and Abscesses, we shall first cousider those which are good and salutary, and afterwards such as are bad and mortal. Those Excretions are therefore best, which are made after a manifest and laudable Concoction : Thus according to *Hippocrates*, in 1 *Epid. Sect.* 2. " Concoction denotes that the Disease will " be short and salutary ;" according to *Galen* in *Lib.* 4. *Aph.* and *Lib.* 2. *de Præsag. ex Pulsibus*, such Excretions are natural, because Nature first concocts, then separates, and afterwards expells the Humours. After these three Steps are taken by Nature, both Excretions and Abscesses are good : *Galen*, in *Lib.* 4. *Aph.* 22. tells us, that Excretions after Concoction are Signs that the Patient is purged by Nature, and in *Lib.* 1. *Aph.* 12. when speaking of critical Excretions, he tells us, " that " if they happen after the Concoction of the Dis- " ease, they indicate a speedy Recovery." Thus in *Epid.* 1. *Ægr.* 14. *Hippocrates* says of *Melidia*, " that her Urine had a white and smooth Sedi- " ment, she sweated, and had her Disease terminat- " ed on the eleventh Day." Hence we infer, that all

all Excretions accompanied with the Signs of Concoction are good, and that the beſt of all are thoſe which happen when the Diſeaſe is fully concocted. In acute Fevers the Concoction of the Urine is to be carefully adverted to, ſince it indicates the State of Diſeaſes affecting the Veins. Hence *Hippocr.* in *Lib.* 4. *de Vict. Rat. in acut. T.* 10. tells us, " that an He-" morrhage from the Noſe terminates the Diſorder, " as alſo critical and laudable Sweats, accompanied " with a thick, white and ſmooth Sediment in the " Urine." It ſometimes happens however, that a laudable Urine and the Signs of Concoction, appear in Perſons who are very near Death: Thus, as we are told in *Lib.* 1. *Epid. Ægr.* 1. *Philiſcus*'s Urine was of a good Colour when he was at the Point of Death; but when we afterwards treat of Urines, we ſhall ſhew that this does not indicate their Concoction. We ſhall only obſerve at preſent, that ſometimes in the moſt dangerous Diſeaſes, and thoſe in which Nature entirely ſuccumbs to the Diſeaſe, the Urine, both in Colour, Subſtance, and Contents, reſembles that of Perſons in Health: Some may think that this Opinion is deſtroyed by the Paſſage, in *Prorrhet. Lib.* 1. *T.* 102. which runs thus, " thoſe who in the Beginning ſweat, have con-" cocted Urine, are exceſſively hot, and refrigerated " without a Criſis, and ſoon after become hot, as alſo " thoſe afflicted with a Torpor, Coma, or Convulſi-" ons, are in a dangerous State;" as if from this, bad Symptoms could be compatible with concocted Urine. But in this Paſſage, according to *Galen*, it ought not to be concocted Urine, but Urine diſcharged with Difficulty: Or perhaps the Author of *Prorrhet.* called concocted Urine, that which is white and thick, becauſe, in truly concocted Urine he obſerved a Sediment of that Kind. But notwithſtanding this concocted Urine is always good in Fevers, and all the Excretions are the beſt, when the Urine is con-

concocted, *Galen*, in *Lib.* 4. *Aph.* 31. places Concoction, and the easy bearing of the Disorder among the Marks of the best Excretions. *Hippocr.* also in *Sect.* 1. *Aph.* 2. tells us, " that in spontaneous Purgings and Vomitings, if such Things as ought to be evacuated are purged off, the Patient is relieved and bears it with Ease." From this Aphorism we shall draw a third Mark of good Excretions, which is, that they afford Relief, according to that Maxim, *if those Things, which ought to afford Relief, do so, it is a good Sign.* These are the principal Marks of salutary Excretions, but to these we may add others, because they appear on critical Days, and preserve a certain Order with respect to their Places. Thus when the Liver is injured the Blood flows from the right Nostril; and when the Spleen is hurt it is discharged from the left: It is also necessary, that no bad Signs should appear, since we have already observed, that a true Concoction of Urine is incompatible with these. But in dangerous Diseases it sometimes happens, that though the Urine appears like that of sound Persons, yet it is not concocted: But of this we shall treat more accurately afterwards. Having thus considered the good and critical Excretions, we now come to treat of those which are bad and symptomatical; these, according to the greatest Physicians, happen before a due Concoction, or when the Urine and other Excrements are crude. Concerning the crude Excrements, *Galen* in *Lib.* 4. *Aph.* 22. tells us, " that while Nature is oppressed by morbific Causes, and a Crudity of the Humours is present, it is impossible any Thing should be duly evacuated;" and in *Epid. Epist.* 2. *Text.* 38. he tells us, that want of Concoction is the Cause of all bad Excretions in the following Manner. " The Cause of all the bad Symptoms which then appeared, was want of Concoction

in

" in the Humours: So that if Nature attempted " an Expulſion of any of them, ſhe did not ob- " tain her End; or if any of them were ſeparated " ſhe ſuffered them to return inwards, or produc- " ed an Abſceſs on account of the Smallneſs of " the Excretions." *Hippocrates*, alſo, in 1. *Epid. Text.* 36. tells us, " that before Concoction, Excreti- " ons denote either no Criſis, or Pain, or the Length " of the Diſeaſe, or Death, or a Relapſe:" *Galen* in " *Com.* in 1. *Epid. Com.* 2. *Text.* 31. tells us, " that " in Diſeaſes where there is a difficult Concoction, " and a Redundance of crude Humours, no Re- " lief is afforded by the Excretions." He alſo affirms, that many and violent Excretions ſoon oppreſs the Strength, but afford no Relief. Double Excretions without a concomitant Concoction, and many Excretions without that Circumſtance are of no Uſe. Hence it is, that in the Beginning of the Diſeaſe, when all the Humours are crude it is impoſſible there ſhould be any good Evacuation, according to *Galen* in *Com. Aph.* 22. & 29. *Lib.* 4. where he alſo tells us, that at this Time nothing is excerned by Nature, and that the Humours excreted are Symptoms of preternatural Diſpoſitions in the Body; and that no good Criſis can be expected from ſuch an Excretion: The ſame is alſo aſſerted in *Lib.* 1. *de Criſibus*, *Cap.* 8. Hence *Hippocrates*, in *Lib.* 2. *Epidem.* and the ſame *Galen*, in *Lib.* 1. *de Criſibus*, tells us, " that Excretions ap- " pearing in the Beginning of Diſeaſes are not " critical:" Hence it is certain, that the bad and fatal Excretions are ſuch as appear with the Signs of Crudity; and theſe Signs denote either no future Criſis, or Pains, or Anxieties, or Relapſes, or Death, or the Length of the Diſeaſe, as we are informed by *Galen*. Hence the Excretions made before Concoction are bad, and prognoſticate what we have already ſaid: But this only holds true with

reſpect

respect to those Excretions, which happen without any of the Signs of Concoction; because as we shall shew in the next Chapter, those which appear with an obscure Concoction are less bad, and sometimes denote imperfect Crises. But these Excretions are of all others the worst, which instead of affording Relief, do harm. Thus *Galen* in 3. *Prorrhet. Comm.* 35. and *Hippocrates*, in *Epidem. Lib.* 2. tells us, "that whatever Excretions afford no Relief are of a bad Kind, whereas, such as do harm are mortal Signs." *Hippocrates* also in 1. *Epidem. Text.* 26. tells us of certain Patients, "who had profuse Sweats, which were so far from relieving, that they did harm;" and afterwards, in *Text.* 54. he says, "that such of these Patients, as vomited up a virulent Matter, died suddenly." Immoderate, large, and too scanty Excretions are also bad: Thus *Hippocrates* in 1. *Epid. Comm.* 2. *Text.* 35. tells us, "that such Excretions are succeeded by Abscesses, either greater than can be born, or smaller than that they can do any good, but immediately return." Having thus treated of the bad Excretions, it next remains, that we consider whether Nature generally produces laudable Excretions before Concoction.

CHAP. III.

Whether before Concoction Excretions are good and useful.

VARIOUS eminent Physicians, and among the rest, *Victor Trincavillius, in Tractat. de Pestilenti Febre* and in *Lib.* 1. *Epist.* affirm, that before Concoction there are Excretions, which are so far from being bad, that they are beneficial, and consequently to be assisted and promoted. For this Purpose, the last mentioned Author distin-

guiſhes both Excretions and Abſceſſes into thoſe of the critical, ſymptomatical, and middle Kind. The Excretions of the firſt Kind are ſuch as are produced by the Superiority of Nature to the Diſeaſe, and theſe are called critical, becauſe they perfectly free the Patient from the Diſorder: Of this Kind are, after a manifeſt Concoction, laudable Sweats, Stools, Eruptions of Blood, and in Diſeaſes of the Thorax, copious and well concocted Spit. The ſecond Kind of Excretions are ſuch as happen when the Diſeaſe overpowers Nature, and theſe are called ſymptomatic Excretions, becauſe they are only Symptoms: Of this Kind, in acute Diſeaſes, are cold, immoderate and weakening Sweats about the Forehead and Neck, and theſe happen when the Diſeaſe is perfectly crude. The third Kind of Excretions is that of a Nature between thoſe of the critical and ſymptomatical Kind, and theſe the Author ſaid were ſo far from being bad, that they were rather uſeful and beneficial: He proved the Reality of theſe three Excretions by an Example of Ulcers, drawn from *Galen*, in *Lib. de differen. Feb. Cap.* 6. *Aph.* 4. where we are told, "that bad "Evacuations are Signs of a fatal Tendency in any "Diſeaſe, and appear often in the ſame Manner "as in putrid Ulcers; from which are diſcharged "Ichors, or ſanious Humours, but ſuch Evacua-"tions ceaſe without doing any good: Sometimes "however they are beneficial, juſt as Pus in a "broken Abſceſs cleanſes and purifies the Part." But this Doctrine is more clearly delivered in *Lib.* 1. *de different. Febr.* where it is ſaid, that Ulcers ſometimes diſcharge an entirely laudable Pus, which is white, ſound, ſmooth, even, and without any Smell; and this Excretion, as it proceeds from Nature, overcoming the Diſorder of the ulcerated Part, may juſtly be compared to the critical Excretions; for as a due critical Excretion prognoſticates

a ſpeedy

a ſpeedy Recovery, ſo ſuch a Pus indicates that the Ulcer will be ſoon healed. But ſometimes Ulcers diſcharge a putrid, fetid, ill-coloured Pus, when the natural Heat of the ulcerated Part is totally extinguiſhed, as in Gangrenes, which ſeems plainly to indicate a ſymptomatic Excretion: Laſtly there is a Kind of Pus diſcharged, not from an abſolute Victory either of Nature or of the Diſeaſe, but as it were from a Struggle between both; and ſuch a Pus diſcovers the Action both of the external and native Heat; for if this Pus is white, it will not be light, and if it is light, it will not be equal, but fetid. From what has been ſaid, we may perceive that ſuch Excretions as are abſolutely ſymptomatic are mortal; and that ſuch as are totally critical are laudable; whereas thoſe of the middle Kind are rather good than bad, ſo that the Phyſician may often prognoſticate a Recovery from them; becauſe they are good and to be promoted even when they happen before Concoction, ſo that contrary to the Opinion of many celebrated Phyſicians, Excretions and Abſceſſes of the middle Kind are good and beneficial; for when the Humours are turgeſcent, they may be profitably evacuated even in the Beginning when they are crude. Thus *Hippocrates* in *Sect.* 1. *Aph.* 22. tells us, " that concocted and not " crude Humours, eſpecially at the Beginning, are " not to be evacuated, unleſs they are turgeſcent, " which they generally are not." If therefore ſuch Humours can be evacuated, when crude in the Beginning of the Diſeaſe, it follows that their ſpontaneous Excretions are to be aſſiſted and promoted: It is perhaps owing to the Thinneſs, Heat and Diſpoſition to Motion in the Fluids, that they are commodiouſly evacuated by Art, and excerned by Nature: Secondly, it is acknowledged by all Phyſicians that in the Plague, Papulæ, Abſceſſes of every Kind, Ulcers, Inflammations of the pa-

rotid Glands, exanthematous Eruptions, and ſmall Pox are rather beneficial than prejudicial. Hence all ſkilful Phyſicians abſtain from Repellents, and all ſuch Things as check theſe Excretions, and do all they can to promote them gently, by the Application of Cupping Glaſſes, by hot Frictions, Injections, Baths, and various other Methods. *Galen* in *Lib.* 1. *de Succorum Bonitate, & Vitio Cap.* 1. tells us, " that theſe Ends are promoted by ſuch Things, " as by gently raiſing Effloreſences on the Skin, " by that means evacuate the peccant Humours " from the Viſcera, and internal Parts." What Phyſician in the Plague or peſtilential Fevers, ever dared to repel Carbuncles, and Inflammations of the parotid or other Glands ? Or who ever was ſo fool-hardy, as to check and ſuppreſs exanthematous Eruptions, the Small-Pox, bilious and putrid Stools ? Beſides that Nature frequently and advantageouſly throws off the crude Humours, is affirmed by *Galen*, in *Lib.* 3. *de Dieb. Decret. Cap.* 8. where we are told, " that the Violence of the Perturba- " tion forces Nature to expel what is hurtful to " her, even before the Time: Since ſhe is poſſeſſ- " ed of a Power of expelling foreign Subſtances." And in *Lib.* 3. *de Præſag. ex Pulſibus, Cap.* 12. we are more diſtinctly told, " that all natural Excre- " tion ſucceeds Concoction, ſince Nature is obſerv- " ed to throw off the Excrements by Stool after " Concoction; whereas ſhe is forced to attempt all " other Excretions which happen before the Ali- " ments are concocted, ſometimes becauſe ſhe is ir- " ritated by them; and ſometimes becauſe they are " vitiated before Concoction. The preternatural " Excretions of all the Parts of the Body are only " made by the Matter irritating the Parts before the " Time:" Hence it is obvious that Nature makes Excretions before the Time, and that all Excretions and Abſceſſes happening before Concoction, are

not

not ſymptomatical, but ſome of them produced by Nature and beneficial. Fourthly, the thin and hot Humours are to be excreted, becauſe they will be rendered turgeſcent by the future Heat: Thus *Galen* in *Lib.* 3. *Prognoſt. Com.* 23. informs us, that the thin and hot Humouts are excellently prepared for Excretion. Hence *Averrhoes*, and ſome others were of Opinion that theſe Humours did not ſtand in need of Concoction before they were purged off, becauſe they were previouſly diſpoſed to an eaſy Excretion: *Galen* a little after the laſt cited Paſſage ſays, "that receding Abſceſſes have neceſſarily a "certain Motion, by which their Humours ſeem to "approach to the Nature of the turgeſcent Kind." That ſuch Excretions of crude Humours are uſeful and to be promoted is ſhewn by the Example of *Silenus*, mentioned in *Lib.* 1. *Epid. Ægr.* 2. of whom *Galen* ſpeaks in the following Manner: "By "his Strength he ſurvived the ſeventh Day, on "the eighth he ſweated, and had round ſmall Pa-"pulæ appearing on his Skin; for the Obſtinacy "of his Diſeaſe propelling the redundant Humours "to the Skin, was the Reaſon why he did not die "on the 9th but on the 11th Day." Hence ſome infer that the Eruption of theſe Papulæ was beneficial even when the Diſeaſe was perfectly crude; and the ſame is to be ſaid of other Excretions. This is confirmed by the Example of *Meton*, in *Epidem. Lib.* 1. *Ægr.* 7. that of *Silenus*, *ibid. Ægr.* 2. that of the Wife of *Epicrates*, *ibid. Ægr.* 5. that of *Clazomenius*, *ibid. Ægr.* 10. that of *Melidia*, *ibid. Ægr.* 14. and that of *Chærion*, in *Epid.* 1. *Lib.* 3. *Ægr.* 5. and of many others. With Reſpect to *Herophon*, *Hippocrates* tells us, that on the fifth Day his Urine was thin and his Spleen tumid, on the eighth his Groin was ſeized with Pains; according to the Direction of the Spleen then theſe Pains were conveyed to both Legs, after which

his Urine aſſumed a more laudable Colour, and had a ſmall Sediment. From theſe Symptoms he conjectured, that the Diſeaſe was as yet ſomewhat crude, ſo that notwithſtanding the Abſceſſes of the Spleen and Legs, and the Sweat which happened on the ninth Day, it was not to be ranked among the ſymptomatical Diſorders; ſince there was a Criſis though not perfect. *Meton* had alſo a Criſis produced by an Eruption of Blood from his Noſtrils, whilſt at the ſame Time his Urine was black and crude, and *Hippocrates* at the very Time the Diſeaſe was crude, uſed a Lotion for the Head, in order to augment and promote that ſymptomatical Eruption of Blood. This Practice is recommended by *Galen*, in 1 *Epid. Text.* 3. *Com.* 25. where he ſays, "the waſhing of the Head is ſometimes "a preſent Remedy, for *Hippocrates* in *Lib. de* "*Ratione victus in Acutis*, ſays, that the Head is "not to be waſhed in ſuch as have an Eruption of "Blood from the Noſe, unleſs the Eruption be too "ſcanty; but it was too ſcanty in this Caſe, becauſe "it was attended with protracted Watchings and a "Delirium." In like Manner the Wife of *Epicrates* had Sweats and frequent bilious Vomitings, by which ſhe had a Criſis when the Diſeaſe was as yet crude. *Hippocrates* alſo tells us of *Clazomenius*, that he had copious, thin and aqueous Stools from the Beginning to the tenth Day: His Urine was perpetually thin, but was of a laudable Colour, and had various Kinds of Matter ſuſpended in it. The like happened to *Melidia*, who on the ſeventh Day had a critical Sweat, upon which the Fever remitted, but ſhe had thin, bilious, pungent, few black Stools, though her Urine was crude and thin: The like was obſerved in *Chærion*, who had thin Urine, but of a laudable Colour, and who on the ſecond Day ſweated all over the Body, and by that means had a Criſis. It has alſo been obſerved in a

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great many more, that Excretions before Concoction have proved critical and beneficial: So that the Doctrine of *Hippocrates* and *Galen* is supported by good Reasons. " But according to " *Massaria, de Purgat. in Principio Morborum*, the " spontaneous or artificial Excretions before Con- " coction are sometimes beneficial, yet they are " not to be imitated, because for the most Part " they are dangerous and hurtful; for though it " may be pretended that by such uneasy Evacua- " tions the Patients are sometimes relieved, yet " we are not to assert that they are proper, and that " the Physician ought to imitate them; for though " they do not produce Death, yet they may bring " on other Inconveniences, from which they would " have been free, if they had happened with the " Signs of a laudable Concoction. The Inconve- " niences of this Kind are excellently described by " *Hippocrates*, in *Lib.* 1. *Epid. Com.* 2. where we " are told, that Excretions before Concoction prog- " nosticate either no Crisis or a bad one, or Pains, " or Anxieties, or Death, or the Length, or the " Return of the Diseases. This is sufficiently ob- " vious from the above-mentioned Patients, for in " *Meton*, mentioned in *Epidem.* 1. *Ægr.* 7. an un- " seasonable Crisis, though not fatal, brought on " violent Symptoms, such as Watchings and a De- " lirium, and would, according to *Hippocrates* and " *Galen*, have laid a Foundation for a Relapse, un- " less after the Crisis there had been frequent He- " morrhages from the Nose. *Herophon*, mention- " ed in *Epid. Lib.* 1. *Ægr.* 3. fell into so dangerous " Symptoms, that according to *Galen*, he contrary " to the Expectations of all survived, till the 14th " Day, when he had a Relapse. The Patient in " the Garden of *Dealces*, mentioned in 3. *Epidem.* " *Ægr.* 3. laboured under all Inconveniences and " Dangers except Death, which, according to *Ga-*

" *len*, he only eſcaped on Account of his great " Strength." This confirms our Opinon: But to theſe I ſhall add, that I think the Excretion of turgeſcent Humours beneficial, and to be promoted, even in the Beginning of the Diſeaſe. Tho' hot, thin, putrid, poiſonous, and turgeſcent Humours of exanthematous Effloreſcences, Puſtules, and Abſceſſes, are rather to be excreted than checked; yet ſuch Excretions are not good of themſelves, when the Diſeaſe is perfectly crude; ſince, in ſuch Caſes, many Patients have been cut off, as we are told by *Hippocrates*, in *Epid.* and *Galen* in *Comment.* but eſpecially in his Book *de Bonitate & Vitio Succorum*, *Cap.* 1. for though it is good that the malignant Humour ſhould be diſcharged from inflamed parotid Glands, exthanthematous Effloreſcences, and other Abſceſſes, yet ſuch Excretions are not to be truſted to, ſince they denote both the Cauſes and Diſeaſes to be ſo violent, that none, except ſuch as are very ſtrong, ſurvive them.

It is not to be denied, that Eruptions of Blood have proved beneficial to many. Thus *Hippocrates*, in 1. *Epidem. Com.* 2. tells us, " That in burning " Fevers, thoſe who had copious Hemorrhages " from the Noſe were preſerved; nor, ſays he, " did I know any die who had a due Eruption of " this Kind; for *Philiſcus*, *Epamenon* and *Silenus*, " who had a ſcanty Hemorrhage on the fourth " and fifth Days, died." This *Hippocrates* obſerved in *Cleonactis*, mentioned in *Epidem. Lib.* 1. *Ægr.* 6. in *Meton. ibid. Ægr.* 7. in the Patient who lay in the Garden of *Dealces*, mentioned *Epidem. Lib.* 3. *Ægr.* 3. in *Pericles*, *ibid. Ægr.* 6. in the young Virgin of *Abdera*, *ibid. Ægr.* 7. the Virgin of *Lariſſa*, *ibid. Ægr.* 12. and many others. Concerning *Meton*, *Galen* tells us, " That large " Hemorrhages from the Noſe are generally ſa- " lutary; for by ſuch an Eruption alone this Pa-

" tient

" tient ſeemed to owe both his Criſis and his " Life, though he had very dangerous Symptoms." Hence it appears, that Excretions of Blood are generally ſalutary, even when they appear in the Beginning of the Diſeaſe; nor is this to be wondered at, ſince before a Concoction can be expected, ſuch Excretions diminiſh the Plethora, cool the Veins, make the Heat tranſpire, and reſiſt Putrefaction; for which Reaſon all Phyſicians in the Beginnings of violent Diſeaſes take large Quantities of Blood from the Patients. But notwithſtanding the Truth of theſe Obſervations, it is certain, that theſe Excretions or Eruptions lay a more infallible Foundation for prognoſticating Recovery, when the Diſeaſe is concocted, than when they appear with the Signs of Crudity. *Galen* ſeems to have been of this Opinion, when in *Lib.* 1. *de Criſibus*, he affirms that an Hemorrhage from the Noſe does not prove critical when the Matter of the Diſeaſe is crude. But *Hippocrates*, in *Lib.* 4. *de victus Ratione in Acutis*, aſſerts, " that an Hemorrhage from the Noſe terminates " the Diſeaſe, when it is accompanied with pale " Urine, whoſe Sediment is thick and ſmooth." *Galen*, in *Lib.* 1. *de Criſibus*, *Cap.* 8. tells us, " That " Hemorrhages, Sweats, thoſe Tumors which " happen behind the Ears, and other Defluxions, " prove beneficial when they happen at a proper " Seaſon, otherwiſe not. *Hippocrates*, in *Lib.* 3. *Epidem. Ægr.* 12. informs us, " That the Wo- " man, who lay in the *Forum Mendacium*, had an " Hemorrhage from the Noſe, notwithſtanding " which ſhe died." And in *Lib.* 5. *Epidem. Text.* 14. he tells us, that the like happened to *Hypoſtenes* of *Lariſſa*. This I have obſerved in a great many Patients, but eſpecially in a young Woman, who after Abortion, laboured under a burning Fever for two Months, during which Time ſhe had fre-

frequent and copious Hemorrhages from the Nose, by which though she seemed to be somewhat relieved, she, nevertheless, had continually crude Urine and Stools, was afflicted with Pains, and at last died. I knew a certain Inhabitant of *Venice* afflicted with a burning Fever, during which, from the first to the fourteenth Day, in which he had a perfect Crisis, he had a continual Hemorrhage from the Nose, together with a copious and continual Discharge of virulent and bilious Stools; but this Patient, notwithstanding his Pains, Delirium, and Watching, was, contrary to all Expectation, preserved, on Account of his great Strength. These symptomatic Excretions are not, however, to be trusted to. The Excretions which happened without the Signs of Concoction, in the Wife of *Epicrates*, *Clazomenius*, *Melidia*, *Chærion*, and the Patient who lay in the Garden of *Dealces*, were rather ctitical than symptomatical, since they appeared with some, though not a perfect Concoction. From *Hippocrates* and *Galen* we learn, that those Excretions are symptomatical, which appear without any Signs of Concoction, when the Matter of the Disease is absolutely crude: Nor can any Evacuation be commodiously made in the Beginning, as we are told by *Galen*, in *Lib.* 4. *Aph.* 22. in the following Manner, " As Diseases are always ac-
" companied with the Signs of Crudity in the Be-
" ginning, so it is impossible but, at that Time,
" the Evacuations of the Humours must be bad." And *Hippocrates*, in *Lib.* 5. *Epidem. Sect.* 1. tells us, " That critical Signs do not appear at first." In the Beginning of Diseases, we know that the Humours are crude, because *Galen*, in *Lib.* 1. *de Crisibus*, makes the Beginning the first Period of the Disease, in which the Matter is crude, and this Period terminates at the Beginning of Concoction; and when it begins to appear, it is called the Augmentation,

mentation, and when this is perfected, the State or Height of the Diſeaſe happens, and at theſe two Times all Criſes happen. Hence, the Excretions of the abovementioned Patients were not, according to *Hippocrates* and *Galen*, of the ſymptomatic Kind, ſince there were ſome Signs of Concoction; for on the eighth Day *Herophon*'s Urine was of a better Colour than before, and had a ſmall Sediment, by which Means he had a Criſis on the ninth Day; but becauſe his Urine was not perfectly concocted, therefore this Excretion threatened a Relapſe: Since, as we ſhall afterwards obſerve, there are two Kinds of laudable Criſes, one perfect, by which the Patient is abſolutely freed from the Diſeaſe, and the other imperfect; the latter happens when ſome of the Signs of Concoction appear, that is, in the Augmentation; but the former happens when the Concoction is entirely perfect, that is, in the Height. The Wife of *Epicrates* on the eleventh Day, had her Urine of a better Colour than it was before, and a copious Sediment. *Hippocrates* tells us of *Meton*. "That "on the fifth Day there was a copious Effuſion "of unmixed Blood from the right Noſtril; he "ſweated, and had a Criſis, after which his "Urine, which was before thin and black, aſſum-"ed a better Colour." Before his Urine was black, with a black Sediment, which are generally mortal Signs. In *Clazomenius* the Urine was perfectly thin, but of a laudable Colour, and had a large Quantity of Matter ſuſpended in it. The like happened in *Melidia* and *Chærion*, whoſe Urines were thin, but of a good Colour, from which *Galen* obſerved, that they were in ſome Meaſure concocted. Hence it is obvious, that Nature can evacuate the Humours, even when they are crude. But ſuch Excretions are rarely good, ſince they generally prognoſticate Death, or bring on great Incon-

conveniencies, ſo that they are never to be truſted. If any other fatal Sign appears with ſuch Excretions, they are always mortal. Hence we infer, that Nature before Concoction frequently produces critical and ſalutary Evacuations; but thoſe of this Kind are not always to be truſted to. We ſhall afterwards conſider the Prognoſtics drawn from the Excretions of particular Humours.

CHAP. IV.

Of critical Days contributing to the Formation of Prognoſtics.

AS we cannot treat of the various Excretions of the particular Humours, ſo neceſſary to the Formation of Prognoſtics, without conſidering critical Days and Criſes, we ſhall therefore diſcourſe of theſe laſt, ſince the Knowledge of them ſeems neceſſary to make the Prognoſtics which ariſe from the ſeveral Excretions. There are therefore theſe Differences between the Days on which Diſeaſes are terminated; there are ſome, on which the Diſeaſe is ſimply reſolved, or terminated with ſome Excretion or Abſceſs, or the Patient dies. Thus *Hippocrates*, in *Lib.* 3. *Prognoſt.* tells us, "That "ſome Fevers are terminated in the ſame Num- "ber of Days, and the Patients either ſurvive or "die. The moſt ſimple Fevers, and thoſe accom- "panied with the moſt ſalutary Signs, terminate "on the fourth Day, or ſooner; whereas thoſe "of a more dangerous Nature, and accompanied "with more fatal Signs, prove mortal on the "fourth Day, or ſooner." Hence *Galen* in *Com.* defines critical Days to be thoſe, in which the Diſeaſes are changed, ſo that the Patients are immediately freed from their Diſorders, or grow better, or die, or become worſe. Theſe Changes by Phy-

Phyſicians called Criſes happen with ſome evident Evacuation, Excretion, or Abſceſs. Critical Days are therefore ſuch, in which the Struggle of Nature with the Diſeaſe, or the Victory of one over the other appears, or on which the Diſeaſe is either terminated, or the Patient cut off. Various and almoſt numberleſs Days are by *Hippocrates*, in his Epidemics, Prognoſtics, and Aphoriſms, ſaid to be of the critical Kind, for which Reaſon, many are of Opinion, that all Days are of the critical Kind, ſince Diſeaſes may be terminated on them. Accordingly *Hippocrates* in 1 *Epidem. Com.* 4. *Text.* 14. tells us, "That the Days which "prove critical, of even Days, are the fourth, "ſixth, eighth, tenth, fourteenth, twenty-eighth, "thirtieth, forty-eighth, ſixtieth, eightieth, and "hundredth; whereas the Days which prove critical on uneven Days are, the firſt, the third, the "fifth, the ſeventh, the ninth, the eleventh, the "ſeventeenth, the twenty-firſt, the twenty-ſeventh, "and the thirty-firſt." And in *Sect.* 1. *Aph.* 36. he tells us, "That in Fevers Sweats are good "when they begin on the third, fifth, ſeventh, ninth, "eleventh, fourteenth, ſeventeenth, twenty-firſt, "twenty-ſeventh, and thirty-fourth Days; whereas thoſe Sweats which happen on other Days "denote Danger, the Length of the Diſeaſe, and "a Relapſe." Some aſſert, that all the Days to the twentieth are critical. *Diocles*, as we are informed by *Galen*, in *Lib.* 1. *de diebus Decret. Cap.* 9. aſſerted, that the firſt and ſecond Days frequently proved critical, perhaps, becauſe Fevers were ſometimes variouſly reſolved on the firſt Day; and *Galen*, in *Lib.* 1. *de Criſibus. Cap.* 17. tells us, that ſome Diſeaſes may arrive at their Height on the firſt Day. It alſo frequently happens, that Perſons die in one Day, as in apoplectic Patients, and ſuch as are ſuffocated. But it rarely happens, that

Crises are brought about on the first and second Days, because the Humours require a longer Time to bring them to Maturity. It is not, however, to be denied, that Excretions are frequently made on the first and second Days; but all these are in themselves bad, as we have shewn in the preceding Chapter. But it is universally agreed upon, that Crises often happen on the third, fourth, and fifth Days. *Galen* also, in *Lib.* 3. *de diebus Decret.* allows, that the sixth Day is critical, but the Crisis happening in it, is very dubious and uncertain. *Hippocrates*, in 1 *Epidem. Ægr.* 12. tells us of *Larissa*, " That on the sixth Day she had a copious " Hemorrhage from the Nose, was seized with an " Horror, and soon after with a warm Sweat all " over the Body; in Consequence of which her " Fever was critically removed." All Physicians confess, that the seventh Day is not only critical, but of all others the most powerful. We have already observed that *Hippocrates* constituted the eighth, one of the even critical Days, and in *Lib.* 4. *Epid. Text.* 3. he makes mention of several Patients to whom a Crisis happened on that Day. The ninth Day is generally allowed to be of the critical Kind. The tenth hath also sometimes been observed to be critical. Thus *Hippocrates*, in *Lib.* 3. *Epidem. Ægr.* 1. tells us, " That on the tenth Day " *Pythion* sweated, had concocted Spit, and a Pe- " riod put to his Disease." And in 6 *Epidem. Sect.* 2. *Text.* 5. the Woman who was cured by *Hippocrates*, in *Cranon*, according to *Galen* had good Sweats the tenth Day. *Galen* also, in *Comment. Histor. Pythion.* affirms, that the tenth Day is not to be absolutely discarded from the Number of critical Days. The same is affirmed concerning the twelfth and thirteenth Days, but a Crisis rarely happens on any of these Days, and when it does, it is not of the good Kind. After the seventh,

Galen informs us, that the next moſt important Day was the fourteenth. Concerning the fifteenth and eighteenth, which ought not properly to be counted among the critical Days, ſome affirm, that on them and on all other Days, Diſeaſes are ſometimes terminated. But though, in all thoſe Days, a Diſeaſe may ſometimes be terminated, yet *Galen* and other Phyſicians have not called them critical Days, which are only thoſe, in which the moſt frequent and conſiderable Changes happen in Diſeaſes. But, in Order to know the true critical Days, the Rules of *Hippocrates* are to be obſerved. *Galen*, in 1 *Epidem.* affirms, that only thoſe Days are critical, which return by fours and ſevens. But *Hippocrates*, in *Lib.* 3. *Prognoſt. Aph.* 36. gives the following Directions for knowing the critical Days. " The firſt Attack is finiſhed in " this Manner, the ſecond is protracted to the " ſeventh Day, the third to the eleventh, the fourth " to the fourteenth, the fifth to the ſeventeenth, " the ſixth to the twentieth; theſe acute Diſeaſes " are, therefore, terminated in the Days which " happen between the fourth and twentieth inclu- " ſive." And in *Sect.* 2. *Aphor.* 24. he tells us, " That the fourth Day is the Index of every ſe- " ven, the eighth is the Beginning of one ſeventh, " the eleventh is to be obſerved, becauſe it is the " fourth of a ſecond ſeven, the ſeventeenth is, al- " ſo, to be obſerved, becauſe it is the fourth from " the fourteenth, and the ſeventh from the ele- " venth." Thus by continuing after twenty to augment the Number by the firſt Quaternary, the twenty-fourth will be the critical Day, and after it, adding the ſecond Quaternary, the Beginning of which is the twenty-fourth, the next critical Day will be the twenty-ſeventh; and thus proceeding in this Manner, the ſucceeding critical Days will be the thirty-firſt, thirty-fourth, thirty-ſeventh, forti-

fortieth, forty-firſt, forty-fourth, forty-ſeventh, fifty-firſt, fifty-fourth, fifty-ſeventh, ſixtieth, ſixty-fourth, ſixty-ſeventh, ſeventy-firſt, ſeventy-fourth, ſeventy-ſeventh, eightieth, eighty-fourth, eighty-ſeventh, ninety-firſt, ninety-fourth, ninety-ſeventh, and the hundredth. Hence there will be as many critical Days as there are Days in which the Criſes, Solutions, and Terminations of Diſeaſes happen. *Hippocrates* and *Galen* add, the third, the fifth, and the ninth, as is obvious from *Sect.* 4. *Aph.* 36. The ſixth is alſo mentioned in theſe Authors as a critical Day. *Hippocrates* divides all theſe Days into critical and indicatory; thus the fourth is indicatory of the ſeventh, the eleventh of the ſeventeenth, the ſeventeenth of the twentieth, the twenty-fourth of the twenty-ſeventh, the thirty-firſt of the thirty-fourth, the thirty-ſeventh of the fortieth. Thus the firſt Quaternary indicates what is to happen in the ſecond, the third in the fourth, the fourth in the fifth, the fifth in the ſixth, and ſo forward.

Hippocrates, in *Sect.* 4. *Aph.* 71. tells us, "That "in Perſons, whoſe Diſeaſes will be terminated on "the ſeventh Day, there will be a red Cloud in "their Urine on the fourth, and all other Cir-"cumſtances as they ought to be." *Galen* in his Comment on this Place, tells us, "That as the "fourth Day is the Index, and denotes of what "Kind the ſeventh is to be, the Signs of Concoc-"tion appearing in it will prognoſticate, that the "Criſis will happen on the ſeventh Day." Thus not only a red Cloud appearing in the Urine denotes a Criſis, but alſo a white and copious Urine, and much more the Eneorema or Cloud ſuſpended in it when it is ſmooth and coherent; but if the Diſeaſe advances quickly, the Change of the Colour and Conſiſtence are ſufficient Signs of a future Criſis: It alſo indicates a Criſis when thin Urine becomes immoderately thick, and when that which

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is pale becomes red. Hence it is obvious that the Signs of Concoction appearing on the fourth, or any other indicatory Day, in the Urine, or any of the rest of the Excrements, indicate a happy Crisis on the seventh; whereas a bad Crisis on the seventh is prognosticated when the Signs of Crudity and Malignity appear on the fourth. This Doctrine is illustrated by *Galen*. *Chærion*, as we are informed in *Lib*. 3. *Epidem*. *Ægr*. 5. had a Crisis on the twentieth Day, because on the seventeenth, which is its Index, his Urine was of a good Colour, and had a Sediment. The indicatory Days are so called, because they indicate the Crisis about to happen in one of the Quaternaries; whereas the critical Days are such as terminate the Diseases. But sometimes this Order is inverted, so that the indicatory Days become critical, and the critical indicatory. Hence there are in continual Fevers as many critical and indicatory Days, as are considered in Order to form the Prognostic; and the Place of these Days in intermittent Fevers is supplied, by the Number of the Returns of the Paroxysms; for as *Hippocrates*, in *Sect*. 4. *Aph*. 59. observes, " That a tertian Fever is terminated in " seven Paroxysms, and the fourth Paroxysm will " be the Index of the seventh, whose Event may " be prognosticated from it." *Galen*, in *Lib*. 3. *Prognost*. tells us, " That as in continual Fevers " we number the Days, in Order to form the " Prognostics, so in those of the intermittent Kind, " we are to number the Paroxysms." So that in intermittent Fevers, the seventh Paroxysm is equivalent to the seventh Day in continual Fevers. Hence a legitimate Tertian is generally terminated in seven Paroxysms, and as the fourth Day is to the seventh in continual, so the fourth Paroxysm is to the seventh in intermitting Fevers. Thus in intermitting Fevers we count by Paroxysms, and

in continual by Days; ſome of which, as we have already obſerved, are critical, and others indicatory. There are alſo other Days, which are called intercalar or intervening, ſuch as the third, fifth, ſixth, ninth, and twenty-firſt, in which Criſes ſometimes happen, though rarely, and when they do, they are neither good nor ſafe, becauſe they proceed from the Diſeaſe provoking Nature, for which Reaſon, they are by ſome called provocatory Criſes. All the other Days are not of the critical Kind, ſuch as the firſt, eighth, tenth, twelfth, thirteenth, fifteenth, ſixteenth, eighteenth, nineteenth; and many others, which not being critical, are either indicatory or intercalar. The Reader may further conſult *Galen de Diebus Decretoriis*, and ſome other Authors, who have wrote pretty accurately on the ſame Subject. Before we proceed to the Prognoſtics ariſing from critical Days, we ſhall conſider their Cauſes, a great Variety of which are aſſigned by the Learned; for many of the *Pythagoreans* affirmed, that they were owing to the Force of certain Numbers; becauſe God and Nature, as they ſaid, delighted in theſe Numbers. The Aſtrologers aſcribe the critical Days to the various Aſpects of the fixed and wandring Stars; others, and eſpecially *Galen*, aſſert, that they are produced by the Aſpect of the Moon; others aſſert, that they owe their Origin to the Sun and Moon, and eſpecially the latter, endeavouring to account for them, in the ſame Manner, as the Philoſophers account for the Flux and Reflux of the Sea. *Amatus Luſitanus*, an Hebrew Phyſician, refers them to an harmonious Conſonance or Agreement. *Ludovicus Lemoſius*, who has wrote very learnedly concerning Prognoſtics, aſcribes the Cauſes of Criſes and critical Days to Nature, and eſpecially her expulſive Faculty, the Redundance of the Humours, the Paroxyſms, the Diſeaſes themſelves,

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and the Nature of the Atmosphere. *Hieronymus Fracastorius* asserts, that the peculiar Motion of the melancholic Humours is the Cause of critical Days. But we refer the Causes of critical Days, not only to the Motion of this Humour, but also to that of the Bile and Phlegm; so that from the proper Motions of the redundant Humours, Crises and Changes happen on certain fixed and stated Days; for we know that the sharp and bilious Humours are moved on the alternate Days, the thick melancholic Juices every fourth Day, and those of the pituitous Kind every Day. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 61. tells us, "That unless a Fever "terminates on some of the odd Days, it general-"ly returns." Thus in Fevers, especially those of the burning Kind, it is best that Nature should on the odd Days, that is, every third Day, throw off the sharp Humours by which they are excited, *Galen* also, in *Libell. Dogmatum. Hippocratis* affirms, "That acute Diseases are generally terminated on "the odd Days." And in 3 *Epidem.* he tells us, "That these Fevers generally begin on the odd "Days," and observes, that it rarely happens, as in a certain Constitution mentioned by *Hippocrates*, in 3 *Epid.* in which most of the Patients had their Accessions on the even Days. *Hippocrates*, in *Lib.* 1. *Epid. Sect.* 3. tells us, "That the Diseases "which begin on the even Days are terminated "on those that are even; whereas those which "attack the Patient on the odd Days, have "their Crises also on the odd." Hence *Hippocrates* affirms, that the critical Days correspond to those on which the Diseases begin. *Galen* in his Comment on this Place tells us, "That the Cri-"ses frequently happen on the same Days with the "Accessions, because in these the Humours are "violently moved, and break forth, either in "Eruptions of Blood, Sweats, Vomits, Stools,

" hemorrhoidal or menſtrual Evacuations, becauſe " at that Time Nature is forced to expel theſe " Things, either becauſe ſhe is ſtimulated and " overpowered, or becauſe the Humours being at " that Time thin, are more eaſily ſecreted, and " conſequently the Criſis more quickly brought " on." Hence it is neceſſary that both the Acceſſions and Criſes ſhould be produced by one and the ſame Cauſe: Thus from the Variety of Acceſſions, that is, from the Acceſſions on the even or uneven Days, *Hippocrates* aſſerts that the Criſes will likewiſe happen on the even or uneven Days. Thus in 1. *Epid. Com.* 3. *Text.* 14. we are told, " that the even Days on which Criſes hap- " pen are the fourth, ſixth, eighth, tenth, four- " teenth, twenty-eighth, thirtieth, thirty-eighth, " ſixtieth, eightieth and hundredth; whereas the " odd Days on which Criſes happen, are the firſt, " third, fifth, ſeventh, ninth, eleventh, ſeven- " teenth, twenty-firſt, twenty-ſeventh and thirty- " firſt." But becauſe the Humours are rarely pure and ſimple, and as with the bilious ſome Portion of the melancholic, aduſt, and frequently of the pituitous Humours is always mixed; hence the Motions of the bilious, pituitous, and melancholic Humours do not always appear ſingle and by themſelves; for which Reaſon the critical Days will ariſe from the ſame Cauſe with the Acceſſions. If it ſhould be aſked from what Cauſes the Acceſſions proceed, I anſwer from the peculiar Motions of the Humours; and if it ſhould ſtill be aſked whence theſe Motions ariſe, I anſwer, it is not as yet truly known, nor is it my Buſineſs to reſolve the Queſtion. To the Motion of the Humours, we alſo add the Force of Nature and the expulſive Faculty, which expelling what the concoctive Faculty has concocted in due Time, keeps ſtated Days for making theſe Excretions; and theſe are the

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true critical Days which we have divided into critical, indicatory and intercalary or provocatory. On theſe Days, as alſo on others which are not properly of the critical Kind, Nature, when irritated by the acrid, poiſonous Quality, or the Redundance of the Humours, produces the Changes and Criſes of Diſeaſes.

CHAP. V.

Of Preſages from the critical Days.

FROM the critical Days Phyſicians prognoſticate Recovery or Death, in ſo far as in them they obſerve the Signs of Concoction and other good Signs; and when theſe appear on the fourth Day, a Criſis or ſome Kind of Solution of the Diſeaſe is juſtly expected on the ſeventh. In Diſeaſes of the Parts ſubſervient to Reſpiration, the Spit is carefully to be obſerved, in Fevers the Urine, and in Diſorders of the Belly the Urine: When all theſe Evacuations are obſerved to be good on a critical Day they denote a Recovery, but when they are found to be crude they indicate either Pain, Anxiety, a Relapſe or Death. In Fevers the Crudity of the Urine, in Diſeaſes of the Parts ſubſervient to Reſpiration, the Crudity of the Spit, and in Diſorders of the Belly, the Stools when appearing crude with other bad Signs, infallibly prognoſticate Death on the next critical Day. This, as we are informed in 1. *Epid. Ægr.* 12. happened to the Wife of *Dormeada*, who on the fourth Day was comatous, had Drops of Blood fall from her Noſe, and diſcharged a ſmall Quantity of oleous Urine, which as being critical Signs are bad on the fourth Day; ſo that ſhe died on the ſixth. But though the Signs of Concoction and other good Signs appear on the intercalary Days, yet they lay a Foundation for no

ſure Prognoſtic, but are rather to be ſuſpected as bad, though it is not to be denied that ſome have been preſerved on the ſixth Day, though very rarely, and not without a Relapſe. It is alſo obſerved that it is beſt when acute Diſeaſes, eſpecially burning Fevers, have good Signs on the odd Days; ſince theſe afford a certain Prognoſtic: Whereas in acute Diſeaſes, the Signs of Concoction or a Criſis appearing on the even Days, afford but a fallacious and bad Prognoſtic. Thus *Hippocr.* in *Sect.* 4. *Aph.* 61. tells us, "that a Fever terminating on the "even Days generally recurs;" but this is ſhewn to be falſe by *Galen* in his Comment on the Place, and *Hippocrates* in 3. *Epid.* ſpeaks of certain Patients, who recovered notwithſtanding they had their Acceſſions on the even Days. But *Galen* in his Comment informs us that this rarely happens, ſince it is in a manner peculiar to all burning Fevers, and other acute Diſeaſes, to terminate on the odd Days: That the Criſes alſo which happen on the even Days are bad and fallacious, we are told by *Galen* in 3. *Epid.* "for, ſays he, if the Acceſſions happen "on the even Days, from the Beginning to the "ſixth, it is a bad Sign, ſince it denotes that the "Diſeaſe will be long; but if the Humours are "violently moved, and there is a bad Acceſſion "on the fourth Day, the Patient will die on the "ſixth;" but this is not univerſally, though moſt commonly true, ſince many have had a ſalutary Criſis on the ſixth Day. Thus *Hippocrates* in *Lib.* 3. *Epid. Ægr.* 12. tells us of the Virgin of *Lariſſa*, "that on the ſixth Day ſhe had a copious Hemor-"rhage from the Noſe, was ſeized with an Hor-"ror, ſoon after which a profuſe warm Sweat ap-"peared all over her Body, by which means ſhe "had a Criſis, and was freed from her Fever." *Galen*, in 6. *Epid.* affirms, that the Woman cured in *Cranon* by *Hippocrates*, and mentioned *Epid.* 6.

Sect. 3.

Sect. 3. *Text.* 5. had laudable Sweats on the tenth Day. Hence we infer that Diſeaſes, whoſe Paroxyſms return on the odd Days, ought likewiſe to be terminated on theſe Days, and when they are terminated on the even Days, the Criſis is neither good nor affords a certain Prognoſtic: On the contrary, as *Galen* informs us in *Lib.* 3. *de Dieb. decret.* chronical Diſeaſes are terminated on the odd Days; but in Diſorders in which the Humours ought to be moved on the even Days, a Criſis is not good on the odd Day, ſince for the moſt Part it lays a Foundation for a bad Prognoſtic. Let this ſuffice with reſpect to Prognoſtics from critical Days, from which rather the Time of the Change than the real Recovery of the Patient is known; for though the Signs of Concoction are good upon critical Days, yet they will ſignify the ſame on other Days; though it is not to be denied that the Signs of Health appearing on critical Days prognoſticate Recovery more infallibly; whereas the Signs of Crudity and other bad Signs afford a bad Prognoſtic. We ſhall add another Rule for prognoſticating from the critical Days, which *Hippocrates* in *Lib.* 3. *Prognoſt.* has expreſſed in the following Manner. "If thoſe who "are ſeized with a Diſeaſe are more oppreſſed "than ordinary on the fourth Day, the Diſorder is "terminated on the ſeventh. Moſt of thoſe who "are bad on the third Day, are worſe on the fifth, "and relieved on the ninth or the eleventh: "In thoſe whoſe Diſorders are increaſed on the "fifth Day, if other Symptoms appear well on the "former Days, the Diſeaſe terminates on the "fourteenth." Having premiſed theſe Things concerning the Knowledge of critical Days, we now proceed to conſider Criſes themſelves.

CHAP. VI.

What Crises are, of how many Kinds, and how they are brought about.

IN order to illustrate the Knowledge of Crises, we have premised an Account of critical Days, since the Reasons of the various Crises may be referred to the Causes of the critical Days, because at that Time Nature is prompted to an Excretion, and evacuates the Humours on these stated Days. But these we shall afterwards consider more accurately, after having considered what Crises are, how many Differences there are among them, and from what Causes they proceed. By a Crisis then is generally understood a Conflict between Nature and the Disease, or rather a Trial, from the Greek Word κρίνω, which signifies to judge, because at that Time a kind of Judgment is formed on the Fate of Nature and the Disease. *Galen* is of Opinion that this Name was not invented by Physicians, but by some of the Vulgar, who being present and thrown into a Consternation on such an Occasion, cried out that a Crisis or Secretion was making, because in every good and laudable Crisis there is first a Secretion, and then an Excretion of the noxious Humours, as we are informed by *Galen* in *Lib.* 2. *Aphorism.* But by the Word Crisis different Persons understand different Things; for according to *Galen* in *Lib.* 1. *de Crisibus*, *Cap.* 1 & 2. it signifies either a sudden Change in a Disease, or a Tendency to a better State, or only the preceding Agitation, or every Solution of the Disease, or only an happy Termination of it. The same Author in *Lib.* 3. *de Crisibus*, *Cap.* 1 & 2. tells us, that a Crisis is a sudden and speedy Change in a Disease, tending either to Recovery or Death; and in *Lib.* 2. *Aph.* 13.

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he tells us, "that a Crisis is a sudden Change in a Dis-
"ease, either towards Death or a Recovery; which
"last is produced by Nature secreting the good from
"the bad Humours, and preparing the latter for
"Excretion." When these Changes suddenly happen in Diseases, *Hippocrates* calls them Crises, in which sometimes the Patient is totally restored, and at other Times dies, whilst on other Occasions a great Tendency is produced either to Recovery or Death, as *Galen* informs us in *Lib.* 2. *Aphorism.* And in *Lib.* 3. *de Crisibus*, he tells us, "That on-
"ly a sudden Change, tending to Health, is sim-
"ply called a Crisis, and is produced by certain
"manifest Excretions or considerable Abscesses;
"and whatever Disorders terminate in another
"Manner, return with greater Malignity." These Excretions and Abscesses are preceded by a violent Perturbation in the Bodies of the Patients. Hence, according to *Galen*, a Crisis is a sudden Change in the Disease, tending either to Recovery or Death. The same Author in *Lib.* 3. *de Crisibus*, calls the one a good, and the other a bad Crisis. But though *Galen* in *Lib.* 1. *de Crisibus*, *Cap.* 1. informs us, that such a sudden Change in Diseases, as has a Tendency to a better State, or brings on a laudable Agitation of the Humours, is only called a Crisis; yet in *Lib.* 3. *de Crisibus*, *Cap.* 1. *Aphor.* 2. he more openly distinguishes a Crisis from the Solution of the Disease, which happens when the Disorder gradually impairs the Patient's Strength; whereas, he calls a sudden Change in Diseases, tending either to Recovery or Death, a Crisis: He also affirms, that these Changes, by which the Patient is either restored or cut off, or by which a great Tendency either to Death or Recovery is produced, were called Crises by *Hippocrates*, who in *Lib.* 1. *Epidem. Sect.* 3. defines a Crisis to be "A Tendency to Death or Recovery, or to

 "a better

"a better or worſe State;" becauſe, as *Galen* obſerves, all Changes tend either to Recovery and are therefore good, or to Death and are therefore bad, or to a better State, and are therefore good though imperfect, or to a worſe State, and are therefore bad, tho' not abſolutely ſo. *Galen* however in *Lib.* 3. *de Criſibus*, *Cap.* 1. ſays, that there are ſix different Changes in Diſeaſes, the two firſt of which are ſudden Changes tending either to Recovery or Death, and theſe he calls good and bad Criſes: The other two are ſuch as do not happen ſuddenly but ſlowly, when the Diſeaſe gradually declines, or the Patient's Strength is impaired. The other two are mixed and conſiſt of both theſe, namely, of the ſudden and the ſlow Kind, when for Inſtance ſome ſudden Change is made in a Diſeaſe either for the better or the worſe and a farther Solution of the Diſeaſe, or the Death of the Patient left to Time. Thus for Example, if on the ſeventh Day a Patient ſhould not have a perfect Criſis by Excretion, an Abſceſs or a Defluxion, but no farther ſenſible Change being made, the Remains of the Diſeaſe ſhould be gradually conſumed, or the Patient's Strength being impaired ſhould bring on Death: We ſhall add other two, which are not ſo properly Changes, as Solutions of Diſeaſes tending to Recovery or Death. Theſe are the ſeveral Changes which happen in Diſeaſes, which though not properly, may yet in ſome Senſe be called Criſes. But the true Criſes are only four, to wit, the ſudden Changes tending to Recovery, or Death, and thoſe tending to a better or worſe State. Hence we infer, that the Differences of Criſes are firſt a ſudden Change tending to Recovery, which is a perfect and good Criſis, becauſe it ſets the Patient entirely free from the Diſeaſe: The ſecond is a ſudden Change tending to Death, and this is a perfect and bad Criſis, becauſe it forthwith cuts off the Patient; the third Change tends

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to a better State, and is a good though imperfect Crisis, because it does not totally relieve the Patient; and the fourth Change tends to a worse State, which is a bad though imperfect Crisis, because it does not forthwith kill the Patient; others have made far more Differences of Crises, affirming that some are good, others bad; some perfect, others imperfect; some certain, and others fallacious; some manifest, and others imperceptible; some dangerous, and others safe; some preceded by indicatory Days, and others not. But since all these are comprehended under the good and bad, we shall only treat of these last, for the good are certain, perfect, or imperfect; manifest, or imperceptible; preceded by indicatory Days, and without Danger; whereas the bad are uncertain, imperceptible, imperfect, dangerous, and not preceded by an indicatory Day. But before we treat of Crises, we shall consider from what Causes they arise; *Galen* then, in *Lib.* 2. *Aph. de veris Crisibus*, tells us, "that Crises are produced by Nature, separating the bad from the good Humours, and preparing the former for Excretion; so that during such a Commotion the Patients are uneasy." Hence it is obvious that Nature produces Crises, by attempting to secrete and expel the bad Humours: But we have elsewhere shewn that Nature is excited to the Production of Crises, either by the noxious Humours plainly secreted from the good, or by the Quality or Redundance of the peccant Humours, before they are secreted from the good; stimulating the expulsive Faculty of the internal Viscera: Hence it is obvious, that both Nature and the Humours are the Causes of Crises. The subsequent Secretions or Abscesses distinguish these Crises from the other Changes which happen in Diseases: The best and most perfect Crises are those in which the noxious Humours are entirely evacuated, after they are concocted and secreted from the good by Nature; but the

the other Changes in Diſeaſes, which are not truly critical, but ought rather to be called Solutions, have other Caſes, ſuch as, the Struggle when Nature overcomes, the crude, groſs, tough and ſluggiſh Humours, which are to be attenuated by Concoction, and then evacuated, by which means the Diſeaſe is gradually carried off, till the Patient recover perfect Health : Or when the Diſeaſe overcomes, and Nature ſuccumbs, theſe Changes proceed from a Loſs of Strength, by which Nature is gradually over-powered and routed by the Diſeaſe. *Galen*, in *Lib.* 3. *de Criſibus*, *Cap.* 10. tells us, " that in " mortal Diſeaſes, it is the firſt and principal Sign " that without a Criſis Death ſucceeds Weakneſs ;" for in this Caſe the languid Strength cannot be rouſed to make a proper Struggle with the Diſeaſe. Having ſaid thus much concerning the Cauſes of Criſes in general, we ſhall treat of each of them more accurately, when we come to explain the Differences of Criſes : We now proceed to enquire what Diſeaſes are terminated by Criſes, and what not.

CHAP. VII.

Of thoſe Diſeaſes which end by a Criſis, and thoſe which are terminated without one.

ACUTE and violent Diſeaſes are only terminated by Criſes, which are never obſerved in ſmall and inconſiderable Diſorders : But here we ſpeak of true Criſes, which according to *Galen* in *Lib.* 3. *de Criſibus*, are made by ſome perceptible Evacuations, or conſiderable Abſceſſes. We have ſhewn that theſe Criſes are produced by Nature, ſtrongly irritated by the Violence of the Diſeaſe, which is the ſame as if we ſhould ſay, by the Quantity of the Symptoms, by which according to *Galen* in *Lib. de Criſibus*, we are to eſtimate the

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Violence of the Diſeaſe; for it is neceſſary, as the ſame Author tells us, in *Lib.* 2. *Aph.* " that on " Account of the Violence of the Diſeaſe, and the " Vehemence of the Symptoms, the Strength " ſhould either be impaired, and conſequently the " Patient die; or that the Strength ſhould be " rouſed to the Excretion of the peccant Hu- " mours; and when the Strength ſurmounts the " Humours it attacks, the Criſis is good; but if " otherwiſe, bad." Hence it is obvious that great or violent Diſeaſes, which, according to *Galen*, in *Lib.* 3. *de Criſibus*, ſignify the ſame, are only terminated by a Criſis, ſince by ſmall Diſeaſes, Nature is not irritated to an Excretion. Hence *Hippocrates* in *Sect.* 2. *Aph.* 13. tells us, " that the " Night before the Criſis, is uneaſy to the Patient, " but the ſubſequent Night more tolerable;" for when Nature, as *Galen* in his Comment on this Place tells us, is ſeparating the bad from the good Humours, the Patient muſt certainly be put greatly out of Order. Hence Criſes are preceded by various and violent Symptoms, which not only diſturb the Patient, but alſo ſtrike Terror into others, as we are informed by *Galen* in *Lib.* 3. *de Criſibus*, *Cap.* 10. though a prudent Phyſician ought neither to be perplexed nor ignorant of the Event, which will ariſe from the Symptoms. This is beautifully expreſſed by *Galen* in *Lib.* 3. *de Criſibus*, *Cap.* 10. in the following Manner. " An approach- " ing Criſis is known from this, that Nature is ſe- " verely irritated and diſtreſſed by the Diſeaſe, as " alſo from the ſudden and unexpected Perturbation " of the Body; for when a Criſis is about to hap- " pen, ſomething new happens either about the Re- " ſpiration, the Mind, the Hearing, the Sight, " or Patience of the ſick Perſon, or about ſome " of the critical Signs." Hence we aſſert with *Hippocrates*, in *Sect.* 2. *Aph.* 13. that the Night be-

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fore the Crisis, is troublesom to the Patient; whereas the subsequent Night is more tolerable. We shall add, that when Crises happen in the Accessions of Diseases, for *Galen* tells us, they may happen at the same Time, they appear more manifestly even in Diseases which have Accessions, and which are great and violent. Hence we infer that great and violent Diseases are terminated by Crises, but not small Disorders, which, according to *Galen* in *Lib.* 3. *de Crisibus*, are such as are not attended with many and violent Symptoms, since in this Case Nature cannot be stimulated to an Excretion. Hence *Galen* in *Lib.* 2. *Aph.* affirms, that acute and violent Diseases in a small Time produce great Changes, which when they happen suddenly, are by *Hippocrates* called Crises. Great Diseases are therefore such as are terminated by a Crisis, and small Disorders, such as go off without a Crisis, because Nature is not irritated by them to an Excretion of the Humours. This is carefully to be adverted to, since, as *Galen* observes, small and weak Fevers are sometimes highly malignant; for Physicians are often deceived when they observe Fevers weak and small externally, whereas they are really very malignant, especially when they seem to have no external Heat, but are accompanied with many and severe Symptoms, such as Watchings, Deliriums, a Difficulty of Respiration, Inquietudes, and other Symptoms which render a Disease violent and great. Thus *Hippocrates* in *Pror. Lib.* 1. *Text.* 34. pronounces some Phrenitic Disorders apparently weak and low, very high and severe: Hence the Disorders, justly called malignant, are generally terminated by Crises, because they are accompanied with many and violent Symptoms by which Nature is stimulated to the Excretion of the noxious Humours: But we now proceed to shew by what Signs future Crises may be prognosticated.

CHAP. VIII.

Of the Signs which prognoſticate future Criſes.

AS we have ſhewn that only great and violent Diſeaſes are terminated by Criſes, we now proceed to conſider by what Signs theſe Criſes may be prognoſticated. The perfect Criſes we ſhall here conſider, becauſe, according to *Galen* in *Lib.* 3. *de Criſibus*, *Cap.* 4. theſe may be certainly prognoſticated, whereas thoſe of the imperfect Kind can only be conjecturally foretold: By a Knowledge of theſe, Phyſicians can prognoſticate future Criſes, aſcertain the Time in which they will happen; and as we ſhall afterwards ſhew, predict by what Excretions or Abſceſſes they will happen. We therefore juſtly affirm, that only great or violent Diſeaſes are terminated by Criſes, though not except the Strength of Nature is ſufficient for that Purpoſe, ſince a Criſis is produced by the Struggle between Nature and the Diſeaſe; for Nature, when languid, cannot engage with a violent Diſeaſe. *Galen* tells us, that on Account of the Violence of the Diſeaſe, and the Severity of the Symptoms, the Strength is ſoon impaired and no Criſis produced, or Nature is ſtimulated to an Excretion of the peccant Humours. Hence in violent Diſeaſes, where the Conſtitution is ſtrong, we may infallibly prognoſticate a Criſis, and the greater the Strength is, the ſooner and the more infallibly the Criſis may be predicted. But it is not ſufficient to know that in violent Diſeaſes, when the Conſtitution is ſtrong, Criſes will happen; ſince it is alſo neceſſary that we ſhould know when they are at hand, and be able to tell whether they will be ſalutary or not: For this Reaſon we ſhall deſcribe all the Signs by which Criſes are known to be at hand. Thoſe Signs, according

cording to *Hippocrates* and *Galen*, are the violent Perturbations of the Patient, the Idea, Nature, Magnitude, Motion and Condition of the Diſeaſe, Concoctions, Crudities, the Seaſon of the Year, the Climate, the preſent Conſtitution of the Weather, and the Nature, Age, Regimen, and paſt Method of Living of the Patient; for *Galen* in *Lib.* 1. *de Criſibus*, *Cap.* 8. and in *Lib.* 2. *Aph.* tells us, that from theſe inſtant and future Criſes may be prognoſticated. But of theſe Circumſtances, ſome ſeem to lay a Foundation for prognoſticating future Criſes, others good and bad Criſes, and others the particular Time in which they will happen, which ſeems to be denoted by the indicatory Days, in which ſome critical Sign appears, ſuch as Concoction or Crudity of the Humours, or ſome other Sign; concerning which *Hippocr.* in *Sect.* 4. *Aph.* 71. ſpeaks in the following Manner. "Thoſe who are to have a Criſis "on the ſeventh Day, have a red Cloud in their "Urine on the fourth Day, and other Symptoms "moderate." By the quick or ſlow Motion of the Diſeaſe, Criſes may alſo be prognoſticated: Thus *Hippocrates* in *Sect.* 1. *Aph.* 12. tells us, "that "Exacerbations and Conſtitutions of Diſeaſes will "be indicated by the Diſeaſes themſelves, the Sea-"ſons of the Year, and the Obſervation of the "Proportion of the Periods, whether theſe Exa-"cerbations happen daily, every other Day, or at "a greater Interval. But the Prognoſtics are to be "taken from the Symptoms which afterwards ap-"pear: Thus if in a Pleuriſy the Spit is expecto-"rated in the Beginning, it is a Sign that the "Diſeaſe will be ſhort; but if the Spit is expec-"torated a conſiderable Time after the Beginning, "it is a Sign that the Diſorder will be long pro-"tracted." But the Concoction or Crudity of the Humours ſeem to lay a Foundation for pronoſticating good or bad Criſes. The Idea of the Diſeaſe

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alſo ſeems to denote whether the Evacuation is proportioned to the Diſorder, and whether it is good. A good or bad Criſis may alſo be known from the Condition of the Diſorder, which, according to *Galen*, may be known from the ſupervening good or bad Signs; all theſe Signs, of which we ſhall afterwards treat more accurately, lay a Foundation for knowing good or bad Criſes: But the other Circumſtances lay a Foundation for prognoſticating future Criſes. Of this Kind are the Perturbations of the Patient before the Criſis, and all the critical Signs, the Violence of the Diſeaſe, the Strength of the Patient, the Natures of Diſeaſes, and of the Humours which produce them, the Regimen, the Seaſon of the Year, the Climate, the preſent State of the Diſorder and other Things of a like Nature. But among all theſe only three ſeem requiſite to prognoſticate the Criſes of Diſorders, to wit, the Acuteneſs and Violence of the Diſorder, the exceſſive Perturbations, and the Strength of the Patient; for when theſe are obſerved a Criſis will certainly happen, for the Strength, when greatly oppreſſed by a violent and acute Diſeaſe, will neceſſarily be either extinguiſhed, or being vehemently irritated to a Struggle with the Diſeaſe, will attempt an Excretion of the peccant Humours; for if the Strength is very languid, it will ſuccumb to the Diſeaſe without a Criſis; but when it is vigorous it cannot ſuccumb, unleſs it ſhould be overcome in the Conflict. But in this Conflict it is neceſſary there ſhould be ſome Excretion of the Humours either good or bad; good when Nature overcomes the Diſeaſe, and bad when the Diſeaſe overcomes Nature. Other Circumſtances, though they do not directly indicate a Criſis, are nevertheleſs ſerviceable for prognoſticating them, and theſe Circumſtances are the Idea or Species of the Diſeaſe in ſo far as there appear Signs of an Excretion propor-

tioned to that Species of Diſeaſe, ſuch as the Signs of an approaching Eruption of Blood in burning Fevers, Concoctions and Crudities. The ſlow or quick Motion of a Diſeaſe alſo lays a Foundation for prognoſticating Criſes; for ſlow moving Diſeaſes are rarely or never critically terminated. The Nature alſo of the Diſeaſes, and the Age, Nature, Regimen, and paſt Life of the Patient lay a Foundation for prognoſticating future Criſes: But let us conſider each of theſe Signs with greater Accuracy. *Hippocrates* then in *Sect.* 2. *Aph.* 13. tells us, "that "the Night before the Criſis is uneaſy to the Pati- "ent, whereas the ſubſequent Night is generally "more tolerable;" with Reſpect to the Symptoms diſturbing the Patients before the Criſis, *Hippocrates* in 1. *Epidem. Com.* 1. tells us of ſome Patients, "who had Pains of the Head and Neck, and Hea- "vineſs ſometimes with and ſometimes without a "Fever: Such of them as were phrenitic, had "Convulſions and vomited a virulent Matter, and "ſome of theſe died ſuddenly. But ſuch of them "as had burning or other Fevers accompanied "with a Pain of the Neck, an Heavineſs of the "Temples, a Dimneſs of Sight, or a Conſtriction "of the Hypochondria without Pain, were ſeized "with an Eruption of Blood from the Noſe, whilſt "thoſe who had an Heavineſs of the whole "Head, Cardialgias and a Nauſea afterwards, vo- "mited up a bilious or pituitous Matter." *Galen* in *Lib.* 2. *Epidem.* and *Lib.* 3. *de Criſibus* tells "us, that ſudden Changes to Health are only "ſimply called Criſes, which are made by ſome "manifeſt Excretion or conſiderable Abſceſs; for "whatever Diſorders terminate in another Manner "return with greater Malignity. But theſe Ex- "cretions and Abſceſſes are preceded by a great "Perturbation in the Body of the Patient; for "they ill bear the Diſeaſe, and are afflicted with

"Watch-

" Watchings, Deliriums, laborious Sleeps, a Dif-
" ficulty of Breathing, Vertigos accompanied with
" Dimneſs of Sight, and impairing of the Senſes,
" Pains of the Head, Neck, Stomach, and many
" other Parts: Some are afflicted with a Ringing
" of the Ears, and a Flaſhing of the Eyes, from
" which the Tears are involuntarily diſcharged,
" the Urine is retained, and the Lips or ſome o-
" ther Parts become tremulous; they alſo become
" forgetful, and ignorant of what happens in their
" Preſence; they are alſo ſeized with a violent Ri-
" gor, the Acceſſion comes on long before the uſu-
" al Hour, their Heat and Thirſt are intolerable,
" they cry and leap like mad Perſons, they cannot
" be in one Situation, and ſoon after a profuſe
" Sweat breaks out, or a vomiting, or purging, or
" Hemorrhage ſucceeds, or all theſe happen at
" once, ſo that the Spectators are not a little terri-
" fied." *Galen* alſo in *Lib.* 3. *de Criſibus*, *Cap.* 80. informs us, that the Pulſe becomes unequal in moſt Criſes, eſpecially when they are of the laborious and dangerous Kind; and ſtill more when the bilious Humours flow to the Stomach, and the other Signs of vomiting, deſcribed by *Hippocrates*, appear at the ſame Time: But *Hippocrates* laid no great Streſs on the Signs drawn from the Pulſe, either becauſe he was ignorant of them or deſpiſed them. Theſe are all the critical Signs, by which before the Criſis that violent Perturbation is produced, which in acute Diſeaſes, where Nature is ſtrong and vigorous, preſages a good Criſis: When they happen in the Height of the Diſeaſe, when the Humours are concocted; but they denote a bad Criſis when they happen in the Beginning, and Nature ſuccumbs to the Diſeaſe. Rigors alſo generally precede burning Fevers and other acute Diſeaſes. Thus *Hippocrates* in *Sect.* 4. *Aph.* 29. tells us, " that
" Fevers in which Rigors happen on the ſixth

"Day, have a difficult Crisis;" and in *Sect.* 4. *Aph.* 46. he tells us, "that if a Rigor happens after the "Patient is very weak, and the Fever is not abat-"ed, it is a mortal Sign;" and afterwards in "*Aph.* 58. he says a Rigor supervening in a burn-"ing Fever, terminates the Disorder;" and in *Aph.* 63. he tells us, "that Fevers in which Ri-"gors daily happen are daily terminated," for among the critical Signs, a Rigor is of great Importance in prognosticating a good or a bad Crisis. The quick Motion also of the Disease, appearing with some other critical Sign, is of Use in prognosticating Crises; for the quick Motion denotes a future Crisis, whereas that which is slow, generally denotes that there will be no Crisis. The quick Motion is denoted by the short Times of the Disease; for the Disease whose Beginning is short, will also have a short Augmentation, Height and Decline: The same is also indicated by short Accessions. Thus *Galen* in *Lib.* 3. *de Crisibus*, *Cap.* 3. tells us, that the Fever which quickly runs through all the four Times of the Accessions, hastens to a Crisis: The same Author in *Lib.* 1. *Epidem.* speaks in the following Manner. "It is to be observed "that when in acute Diseases, the fourth and third "Paroxysms are accompanied with violent Symp-"toms and Signs, a Crisis is soon to be expected." Crises may also be predicted from the Species of Diseases, for there are certain fixed Properties constituted by the particular Species of Diseases, by which they come to a Crisis. Thus according to *Galen*, in *Lib.* 3. *de Crisibus*, it is the peculiar Property of burning Fevers to be terminated by an Eruption of Blood from the Nose, or some other Part of the Body; or by a profuse, universal and warm Sweat breaking out after a Rigor; or by a bilious Vomiting, or some other Excretion of the Humours. In such Diseases therefore all the Signs

which

which indicate any of the before-mentioned Excretions denote not only a future, but even a Kind of present Crisis either good or bad. Thus *Hippocrates* in *Sect.* 4. *Aph.* 58. tells us, that a Rigor supervening on a burning Fever terminates the Disease, especially when it is succeeded by an Eruption of Blood, Sweats, or an Excretion of the bilious Humours. *Galen* in *Com.* in *Hippocrat. Prorrhet. Lib.* 1. *Text.* 132. tells us, " that Diseases which are at " first very severe, accompanied with want of " Sleep, and a Dropping of Blood from the Nose " are relieved on the sixth Day. In the Night " Time the Patient is uneasy, the next Day sweats, " is inclined to sleep, becomes delirious, and has a " copious Effusion of Blood ;" and in *Epidem. Lib.* 1. *Com.* 2. *Text.* 55. he tells us, " that in " burning Fevers and others accompanied with " Pain of the Neck, Dimness of the Eyes, Heaviness of the Temples, and a Constriction of " the Hypochondria without Pain, there is an " Eruption of Blood from the Nostrils." The same holds with respect to those who have Sweats, Stools, or bilious Vomitings, of whom *Hippocrates* in 2. *Prognost.* says, " they who have an Heaviness " of the whole Head, a biting Pain about the " Mouth of the Stomach, and an Uneasiness of " the Stomach itself, vomit a bilious and pituitous " Matter, as happened to *Chærion*," concerning whom *Hippocrates* in *Lib.* 3. *Epidem. Ægr.* 5. tells us, " that on the fifth Day, all the Symptoms " were increased with Pain, he became delirious, " had an uneasy Night, and did not sleep, on the " sixth there was no Change in his Situation, on " the seventh he was seized with a Rigor, his Fever became acute, he sweated all over the Body " and had a Crisis ;" and in *Epid. Lib.* 3. *Ægr.* 12. he says of a certain Virgin of *Larissa*, " that " on the fourth Day towards Night she became de-

" lirious, on the ſixth ſhe had a large Diſcharge of " Blood from the Noſe, ſhe was ſeized with an " Horror, and immediately had a profuſe warm " Sweat all over her Body, by which means ſhe " was critically freed from her Diſorder." Thus alſo from other Signs, denoting Evacuation in other Diſeaſes, their Criſes may be prognoſticated. Thus in Tertians the Signs of Vomitings, bilious Stools and Sweats denote a Criſis; in Quartans the Signs of profuſe Sweats, and pituitous Stools, denote alſo a Criſis. In phrenitic Patients the Signs of future, copious Sweats from the Head, and of an Eruption of Blood from the Noſe denote a Criſis. In Pleuriſies, Inflammations of the Liver, Spleen, Præcordia, the Signs of future Hemorrhages, Stools, Vomits or Sweats are all critical Signs: Thus Phyſicians may prognoſticate the Criſes from the Species of the Diſeaſes, it is alſo certain from what has been ſaid, that a good Criſis is prognoſticated by the Concoction of the Humours when it is accompanied with any other critical Sign; for Concoction will always indicate a Criſis in one of the Quaternaries, when it appears on one of the critical or indicatory Days, in any violent Diſeaſe, and accompanied with a Pain of the Head, a Delirium, or any other critical Signs: Thus *Hippocrates* in 1. *Epid. Sect.* 2. tells us, " that " Concoction indicates the Quickneſs and Safeneſs " of the Criſis;" Criſes are alſo predicted from the indicatory Days. Thus *Galen* in *Lib.* 3. *de Criſibus* tells us, " that if upon the fourth Day the Diſeaſe " is violent, its Motion quick, and the Signs of " Concoction obſerved, the Criſis will happen on " the ſeventh Day, and if theſe Things happen " only on the ſeventh, the Criſis will be on the e- " leventh or fourteenth." The Prognoſtics of future Criſes are confirmed by the hot Nature of the Diſeaſe, the hot and eſpecially the putrid Humours, the

the hot Nature of the Patient, his Youth, his former Method of Life, the Uſe of bilious Aliments, the Heat of the Climate and the Seaſon of the Year; for every one knows that it is peculiar to hot Humours to be prone to Excretion, and by their own Quality to ſtimulate and irritate Nature to their Excretion; in Conſequence of which an hot Temperament is moſt powerfully diſpoſed to Criſes, whereas cold Diſeaſes, cold Humours, and cold Conſtitutions, a cold Air, the Winter Seaſon, and other Things of a like Nature, not only retard, but alſo prevent Criſes, as we are informed by *Galen* in a great many Paſſages. Let thus much ſuffice, with Reſpect to the critical Signs, three of which are ſufficient to prognoſticate Criſes, namely, the Greatneſs of the Diſeaſe, the Perturbations of the Body, ſuch as Pains, Inquietudes, Deliriums, and others of a like Nature before-mentioned from *Galen*, and laſtly the Strength of the Patient. When theſe three Signs appear, it is not to be doubted but a Criſis is about to happen: But though the other Signs do not of themſelves denote a Criſis, yet they may in ſome Meaſure prognoſticate one, as we have already ſhewn from *Galen*.

CHAP. IX.

Of the ſalutary Criſes which prognoſticate certain Recovery.

HAVING conſidered what Signs prognoſticate Criſes, it now remains, that we examine what Criſes are good and ſalutary, and what bad and fatal; that from them we may be able to prognoſticate the Death or Recovery of Patients, and this is the principal Deſign for which we have treated the Doctrine of Criſes with ſo much Accuracy. To begin therefore with the laudable Criſes, which

prognoſticate a Recovery; theſe are of two Kinds, the one abſolutely good, and infallibly denoting Recovery, the other uncertain, and generally denoting a Relapſe and Danger. The Criſes of the firſt Kind are indicated by the Signs of a perfect Concoction appearing in the Excrements, by the State of the Diſeaſe, by the Indication of the Criſis on the indicatory Days, by its happening on ſome of the critical Days, by the Agreement of the ſubſequent Excretions, with the Nature of the Diſeaſe, by the Reſolution of the Diſeaſe in Conſequence of theſe Excretions, by the better Colour and greater Strength of the Patient, by his appearing more quiet than before, and by his Pulſe appearing better, more vehement, equal and regular. That a perfect Concoction of the Excretions is a principal and infallible Sign of a laudable Criſis we are informed by *Hippocrates*, in *Lib.* 1. *Epidem. Sect.* 2. where it is ſaid, "That Concoctions denote the "Quickneſs of the Criſes, and the Certainty of "the Recovery." And *Galen* in *Lib.* 3. *de Criſibus*, *Cap.* 3. ſpeaks in the following Manner: "It "is of great Importance to conſider the Concocti-"ons of the Urine, Excrements and Spit; for "though I have been preſent a thouſand Times "when Criſes were carrying on, yet I never "ſaw any one die, whoſe Criſes were preceded by "a due Concoction." Perfect Concoction, therefore, obſerved in the Excrements, is the moſt certain Sign of a laudable Criſis. In all Fevers, therefore, whether the Viſcera are unaffected, or whether there is an Inflammation of the Liver, Kidneys, Bladder or Spleen, and in a Word, wherever there is a Fever excited, either by the Putrefaction of the Humours, or the Inflammation of any Member, the Concoction of the Urine is a Sign of the beſt and ſafeſt Criſis, according to *Galen*. In Diſorders of the Thorax and Lungs, the Concoction

tion of the Spit, and then of the Stools and Urine, is the moſt certain Sign of a laudable Criſis. In like Manner, in Diſorders of the Belly, the Concoction firſt of the Stools, and then of the Urine, is a Prognoſtic of a laudable Criſis. Hence Concoction of the Excrements is the moſt certain Sign of a good Criſis. This *Galen*, in *Lib. 3. de Criſibus, Cap.* 5. tells us, "That after good Signs and "a due Concoction, the beſt Criſes happen, be- "cauſe the Concoction alone indicates the Speedineſs "and Safety of the Criſis; nor is it poſſible to "conceive that a bad Criſis ſhould happen after "a perfect Concoction." But a perfect Concoction happens in the State or Height of the Diſeaſe. Hence *Galen*, in *Lib. 3. de Criſibus, Cap.* 6. informs us, that the beſt Criſes happen either in the Height or a little before it; becauſe at that Time, as he tells us, in *Cap.* 4. of the ſame Book, all the Humours are concocted; but Criſes happening in the Augmentation of Diſeaſes, are either imperfect or unſafe. But this State, which in the firſt Book we called the State of Nature, and in which the beſt Criſes happen, is to be diſtinguiſhed from the State of the Diſeaſe, which never agrees with that of Nature, for the State of the Diſeaſe happens frequently either in the Beginning or Augmentation of Nature, or of the Matter, as ſome call it; at which Time we ſay, the Diſeaſe exerts its utmoſt Strength, and is no longer encreaſed in Greatneſs and Violence. Of this State of the Diſeaſe we do not here ſpeak, but of the State of Nature, which is not known by the Violence of the Diſeaſe, but by the perfect Concoction; for in this State the beſt, moſt ſalutary, ſafe and perfect Criſes happen. We have alſo obſerved that the beſt Criſes are ſuch as before they happen are indicated by ſome indicatory Day, by the fourth Day for Inſtance, if the Criſis is to happen on the ſeventh:

Thus

Thus *Hippocrates* in *Sect.* 4. *Aph.* 71. tells us, "that "they who are to have a Crisis on the seventh "Day, on the fourth have a small red Cloud in "their Urine;" those Crises are also best which "happen on critical Days. Thus *Hippocrates* in *Sect.* 4. *Aph.* 36. tells us, "that in a Fever Sweats "are good, when they begin on the third, fifth, "seventh, ninth, eleventh, fourteenth, seven-"teenth, twenty-first, twenty-seventh, thirty-first "and thirty-fourth Days; for such Sweats termi-"nate the Disease; but Sweats happening on other "Days denote Difficulty, the Length of the Dis-"ease, or a Relapse." To these Signs we shall add, that a good Crisis is known from the Quality of the excreted Humour; for the most laudable Crisis has an Excretion suited to the Nature or Idea of the Disease; as for Instance in burning Fevers, and all Inflammations of the Viscera, an Eruption of Blood or copious Sweats, or Vomits, or many bilious Stools, which Excretions are suited to the Nature of the Disease, which is hot and dry, and is supported by hot and bilious Humours. Hence it is obvious that this good Excretion is confirmed by the bilious Nature of the Patient, his formerly living on bilious Aliments, his being in the Prime of his Youth, his Disorder seizing him in the Summer Time, in a hot and dry Climate and in such a State of the Atmosphere, for such a bilious Excretion after the Signs of Concoction, is of a laudable and salutary Kind in all bilious Diseases: Thus also pituitous Excretions are best in pituitous, and black in melancholic Disorders. We have already observed from *Galen* that all burning Fevers, Tertians, and violent Inflammations are terminated by Sweats, especially if they are accompanied with copious Eruptions of Blood from some Part of the Body, bilious Vomitings, or bilious Stools, Inflammations of the Brain, and all the other Disorders of the

the Head are terminated in the ſame Manner : We have elſewhere obſerved that an Eruption of Blood terminates not only burning Fevers, but alſo Synochas ſometimes, though not frequently ; Phrenitiſes, Pleuriſies alſo, though not ſo often as burning Fevers, and ſometimes Peripneumonies, though very rarely. Inflammations of the Liver and Spleen, are frequently terminated by Eruptions of Blood from the Noſe ; but the Blood flowing from the right Noſtril relieves the Liver, whereas that diſcharged from the left is beneficial to the Spleen, becauſe all good Excretions and Evacuations ought to preſerve a certain Order. An Hemorrhage alſo terminates all Inflammations of the Præcordia, Sweat alſo, as has been already obſerved, relieves all hot and acute Inflammations of the Præcordia : Diſorders of the concave Parts of the Liver are alſo relieved by Hemorrhages, Sweats and copious Diſcharges of Urine, whereas thoſe of its convex Parts are aſſwaged by bilious Stools, Sweats and ſometimes Vomits. Diſorders of the Kidneys and Bladder are alſo generally terminated by copious Diſcharges of Urine, and thoſe of the Thorax and Lungs by Spit. Theſe Things I have added from *Galen* in *Lib.* 3. *de Criſibus Cap.* 2. that the Reader might know what Excretions correſpond to the Natures of Diſeaſes, and by that Means the Difference between a good and a bad Criſis, ſince in the former the Evacuation is ſuited to the Nature of the Diſeaſe, but not in the latter. This was perhaps meant by *Hippocrates* when in *Sect.* 1. *Aph.* 2. he tells us, " that in ſpontaneous Perturbations of the Belly, " and Vomitings, if what ought to be purged off is " evacuated, it is beneficial and the Patients bear it " eaſily ;" and in the ſame Section *Aph.* 23. he tells us, " that the Matter evacuated is not to be eſtimated " by its Quantity, but it is to be conſidered whether " ſuch Things as ought to be evacuated are carried

" off,

" off, and whether the Patient bears it easily. It is also to be carefully considered whether the place from which the Excretion is made, is proper and agreeable to the Tendency of Nature. Thus *Hippocrates* in *Sect.* 1. *Aph.* 21. tells us, " that the Humours to be evacuated are through proper Channels to be conveyed to those Parts to which they naturally tend." *Galen* in his Comment on this Aphorism, by the proper Places for a good Excretion, means the Places affected to which he would have the Humours directly conveyed. [καλιθὺ.] Hence it is obvious what Excretions are suited and proportioned to the Nature of the Disease, and consequently produce the best and most salutary Crises, which may also be known by other Signs; for by their Means the Patients are either cured or rendered better and more easy; and this is what *Hippocrates* means when in *Sect.* 2. *Aph.* 13. he tells us, " that the Night before a Crisis is laborious, but the subsequent one generally more tolerable." This happens according to *Galen* in his Comment on this Place, because most Crises tend to a Recovery; for it is certain that after a Crisis more recover than die, unless the State of the Air is pestilential. *Hippocrates* in *Sect.* 1. *Aph.* 11. & 23. makes it a sure Sign of a good Excretion when the Patient bears the Evacuation with Ease concerning this Sign, *Galen* in his Comment speaks in the following Manner: " If the superfluous Humours are evacuated the Patient must necessarily be relieved and support his Disorder more easily;" and in *Lib.* 3. *de Crisibus*, *Cap.* 2. he tells us, " that according to the Evacuation the Patient becomes better coloured and fitter for getting out of Bed, whilst the Fever is either resolved or in a great measure diminished." These Signs of a laudable Crisis will also be confirmed by the Pulse, which becomes better, more vehement, equal and regular.

Thus

Thus *Galen* tells us, " that in a good Decline, the " Pulſe becomes gradually more vehement, equal " and regular, becauſe at that Time Nature ſtrong- " ly and ſuddenly expels all the febrile Heat:" Whereas in mortal Declines the Pulſe is weak, irregular and unequal. Theſe are the Signs which denote a certain and ſalutary Criſis. Thus *Hippocrates* in *Lib.* 3. *Epidem. Com.* 1. *Ægr.* 3. tells us of ſome Perſons who had happy Criſes after theſe Signs; and eſpecially of the Patient who lay in the Garden of *Dealces*, of whom he ſpeaks in the following Manner. " On the fortieth Day he diſcharged " frequent, pituitous and white Stools, had a pro- " fuſe Sweat all over his Body, and was abſolutely " freed from his Diſorder." And in the ſame Place he ſays of *Nicodemus*, " that on the twenty fourth " Day he diſcharged a large Quantity of Urine, " which had a copious Sediment, and that he had a " profuſe warm Sweat all over his Body, by which " means he was critically freed from his Fever." In *Epidem. Lib.* 3. *Ægr.* 6. we are told, " that " *Pericles*, after a copious Diſcharge of concocted " Urine, with a large Sediment, reſted next Night. " On the fourth Day after, about Noon, a profuſe " warm Sweat broke out all over his Body, by " which means he was critically freed from his " Fever, which did not return. " And in the ſame Book, *Ægr.* 8. we are told of *Anaxio* who laboured under a Pleuriſy," that on the twenty ſeventh " Day the Fever returned, he coughed and ex- " pectorated a large Quantity of concocted Spit, " his Urine had a copious white Sediment, his " Thirſt left him, he ſlept well; on the thirty- " fourth Day he ſweated, his Fever ceaſed, and " he had a perfect Criſis." And in the ſame Book *Ægr.* 9. he tells us of *Heropytus*, " that about the " eightieth Day all his Symptoms remitted, his " Urine was of a better Colour, and had a more co-

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" pious Sediment, and his Delirium was diminish-
" ed. About the hundredth he discharged many
" bilious Stools, which continued long to be so.
" Then he was seized with a Dysentery, with
" Pain, his other Symptoms were alleviated, at
" last his Fever and Deafness left him, and on the
" hundredth he had a perfect Crisis. " In all these Instances we may observe the Signs of good Crises, which, as we before observed, are a manifest Sign of Concoction in the Excrements; their happening in the Height of the Disease, their being prognosticated by indicatory Days, their appearing upon critical Days, and the Excretions answering to the Nature of the Disease. These are succeeded by a Termination or manifest Diminution of the Fever and a Mitigation of the Symptoms, all which were observed by *Hippocrates* in the forementioned Crises. Thus in *Nicodemus* the copious white Urine, with a great deal of Sediment, was the Sign of a manifest Concoction. In *Pericles* the Sign of Concoction was a large Quantity of concreted Urine, with a great deal of Sediment. In *Anaxio* the large Quantity of concocted Spit and the Urine, with a laudable Sediment, were Signs of Concoction, which was also indicated in *Heropytus* by the good Colour of his Urine, which had a copious Sediment. This perfect Concoction indicated that these Crises were made in the State or Height of the Disease, and as they happened on critical Days, so they seem to have been prognosticated by the indicatory Days. The Excretions were also suited to the Nature of the various Diseases; for the Patient who lay in the Garden of *Dealces*, whose Disorder was a Fever produced by an Admixture of bilious, thick and pituitous Humours, discharged many pituitous Stools, and by his copious Sweat the thin bilious Humours were excreted. *Pericles* also by his copious Sweat evacuated the Bile which had excited his Fever. The same held true of all the other

Excretions,

Excretions, which were ſucceeded by an Alleviation both of the Fever and Symptoms.

CHAP. X.

Of the ſalutary Criſes, which are neither faithful nor always certain.

CRISES frequently good ſometimes appear, but ought not always to be truſted to by Phyſicians. The Criſes of this Kind are diſtinguiſhed from the beſt and ſafeſt Sort by the following Marks: The former are not accompanied with the Signs of a perfect Concoction, nor do they happen in the Height but in the Augmentation of the Diſeaſe. Nor are they prognoſticated by the indicatory Days, nor do they appear on the critical, but on the intercalary Days, becauſe Nature without a perfect Concoction is forced to enter into a Struggle with the Diſeaſe, which is rarely by that means well terminated, but for the moſt Part in a bad and dangerous Manner. And though ſome Signs of Concoction appear, yet the Evacuations do not correſpond to the Natures of the Diſeaſes, the Conſtitutions of the Patients, their Ages, their former Method of Life, the Seaſon of the Year, the State of the Air, and the Climate. Beſides, though all the Symptoms ſhould be good, and the Patient neither bear the Evacuation eaſily, nor be relieved by it, ſuch a Criſis is not to be truſted to, eſpecially if the Patient have not a good, regular and ſtrong Pulſe. Criſes appearing with theſe Signs are not abſolutely certain, though they generally prognoſticate Recovery; but they terminate Diſorders with Pain and Difficulty, and lay a Foundation for Relapſes. But we ſhall treat of theſe Signs ſeparately, beginning with thoſe which appear in Augmentations of Diſeaſes, when Nature is only

 beginning

beginning to concoct the Matter of the Diſeaſe, and a few Signs of Concoction are obſerved. In ſuch Diſeaſes as are not of a mortal Nature theſe Signs of a begun Concoction prognoſticate a good Criſis, which however is not abſolutely certain, but lays a Foundation for Relapſes, Pain and the Length of the Diſeaſe. But the Criſes produced by Hemorrhages are more certain and infallible, ſince even in the Beginning, when no Signs of Concoction appear, a large Eruption of Blood generally affords a pretty certain Prognoſtic of Recovery. This was exemplified in *Epidem. Lib.* 3. *Ægr.* 6. in *Pericles*, who labouring under a Diſorder of the Spleen, had an Hemorrhage from the left Noſtril on the firſt Day: And in the ſame Book *Ægr.* 7. we are told of the Virgin of *Abdera* who dwelt in the Porch of the Church, that on the firſt Day her Menſes flowed; on the ſeventeenth ſhe had an Hemorrhage from the Noſe; and on the twentieth ſhe had a copious Hemorrhage accompanied with a Sweat, by which Means her Diſorder was critically terminated. In 1. *Epid. Ægr.* 7. we are told of *Meton*, that on the fourth Day his Criſis began with an Eruption of Blood from the Noſe, and on the fifth the Criſis was perfect and accompanied with a Sweat, neither had he any Relapſe, becauſe he had an Hemorrhage after the Criſis.

An imperfect Criſis produced by an Eruption of Blood happened in *Heropytus*, of whom *Hippocrates*, in *Lib.* 3. *Epidem. Ægr.* 9. ſpeaks in the following Manner. "On the twentieth and ſome of the ſucceed-
" ing Days he was very delirious, on the fortieth
" he had a copious Hemorrhage from the Noſe, and
" had the Uſe of his Reaſon better than before, he
" was alſo deaf, though not ſo much as before his
" Fever was remitted. On the ſucceeding Days the
" Blood burſt from his Noſtrils by little and little. A-
" bout the ſixtieth Day the Eruptions from his Noſe
" ſtopt, his right Coccendix was very painful and

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" his Fever increaſed, but he at length had a perfect " Criſis on the hundredth Day." From this Hiſtory we infer, that though Criſes produced by Excretions of Blood are more ſalutary and ſafe than other Evacuations before the Concoction is perfect, that is, before the State, yet they are not abſolutely certain and to be truſted to; ſince though they are generally ſalutary, they prognoſticate Pain, Relapſes, and the Length of the Diſeaſe: But ſuch Criſes, when they appear in the Beginning of a Diſeaſe, and are accompanied with any other fatal Sign, are bad, ſince in weak Patients they are ſucceeded by ſudden Death, and in ſuch as are robuſt, Death comes after a longer Time; which happened to the Woman who lay in the *Forum Mendacium*, and who in *Epidem. Lib.* 3. *Ægr.* 12. is before her Death ſaid to have many Criſes in the Beginning of her Diſorder, without any Signs of Concoction. But of this Patient we ſhall treat more accurately, when we come to conſider the mortal Signs; only from what has been ſaid, let us conclude, that before the State or Height, Criſes are not abſolutely good and certain, as *Galen* tells us in the following Manner: " Suppoſing then " that the State ſhould be expected on the four- " teenth Day, and either through the Strength of " the Diſeaſe, the Quickneſs of its Motions, or " any other Cauſe, it ſhould be anticipated on the " eleventh Day, the Criſis will be neither good " nor perfect;" and afterwards he tells us, " that " if the Diſeaſe is not mortal, and if neither its " Strength nor State are too much haſtened, nor " ſome Error committed in treating the Patient, " the Criſis may be expected at the Time of the " Height; and this is the beſt Kind of Criſis, be- " cauſe it happens when the Matter of the Diſeaſe " is concocted. But if through the Strength of " the Diſeaſe, the Swiftneſs of its Motion, or any

" Stimulus, the Crisis is brought on before the " State, the Crisis will be so much the worse, by " how much it has anticipated the State." We have elsewhere shewn that Nature sometimes evacuates the Humours before the State, and even frequently in the Beginning, sometimes before the Concoction of the Humours is begun, sometimes after, and at other Times when it is perfected, at which Time the Crises are best. The first are absolutely fatal, but *Galen* in *Lib. de Crisibus, Cap.* 8. and in *Lib.* 1. *de tot. Morb. Temp. Cap.* 3. tells us, that in such Diseases as are not of a mortal Nature, Crises happening in the Augmentation, when the Concoction is begun, are good though imperfect, and not to be trusted to. Hence *Hippocrates* and *Galen* affirmed such Crises to be mortal as happened when the Diseases are in the Beginning, and the Humours absolutely unconcocted; whereas the Crises happening in the Augmentation are called good, though not certain and perfect. *Galen* in *Lib.* 3. *de Crisibus, Cap.* 7. and 12. and in *Lib.* 4. *de Præsag. ex Pulsibus*, speaks in the following Manner. " It is often expedient that Nature " should, before the stated Time, expel the Hu- " mours which prove troublesom; for she her- " self is the Faculty by which foreign Objects are " expelled, as we have shewn in our Work *de Na-* " *turalibus Facultatibus.* But the Time of Con- " coction happens after the alterative Faculty has " performed its Work," for it is certain that Concoction happens not produced till Nature has ceased from her Work. But Nature before a perfect Concoction is sometimes forced to attempt the Expulsion of the peccant Matter. Whereas at other Times, after a perfect Concoction, she is so weak as only to make the Excretion slowly and by Degrees: Both these Cases are plainly observed in the Stomach, which when stimulated does not wait for

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the Time of Concoction, but forthwith expels the peccant with the laudable Matter; whereas at other Times, after a due Concoction, it is so weak as only slowly to expel the superfluous Matter. Hence Crises before the Augmentation appearing with some, though not all of the Signs of Concoction, may be called good, yet are not always certain, and to be trusted to. In like Manner the Crises which do not happen on the critical Days are uncertain, and the Diseases terminated in this Way generally return. Crises also happening in some of the intercalary or intervening Days, are not absolutely good and certain: Thus *Hippocrates* in *Sect.* 4. *Aph.* 29. tells us, "that in those Patients who in Fevers "have Rigors on the sixth Day, a Crisis happens "with Difficulty." We have elsewhere observed that on the sixth Day, the Virgin of *Larissa* had a Crisis, by Means of an Hemorrhage accompanied with a Sweat: And *Galen* in 6. *Epid. Comment.* 3. in *Tit.* 19. tells as, that good Crises have sometimes been observed on the tenth Day. Hence *Hippocrates* in *Sect.* 4. *Aph.* 61. tells us, "that un-"less a Fever is terminated on some of the odd "Days, it generally returns." Crises also which have some of the Signs of Concoction, but want Evacuations, proportioned to the Natures of the Diseases, can never be either perfect or certain. Thus if in a young Man of a bilious Constitution labouring under a bilious Disorder in the Summer, we should observe a copious Evacuation of pituitous Matter by Stool or Vomit, the Crisis, because the Evacuation is not suited to the Nature of the Disease, will be uncertain and fallacious. The like happens in a pituitous Fever, if the Excretions are bilious, as also in Affections of the Liver, when the Blood flows from the left Nostril, and those of the Spleen, when it flows from the right; for these Crises are not rightly proportioned to the Nature

of the Diſorders; beſides they are juſtly ſaid to be uncertain and fallacious, ſince they are ſometimes good and ſometimes bad. The fallacious and uncertain Nature of Criſes is alſo denoted when the Patients for a little Time ſeem ſomewhat better, but ſoon after the Symptoms and Fever recur. Theſe Criſes are good, though not abſolutely ſo; and tho' they are generally ſalutary, yet they are not certain, faithful and perfect, neither do they always prognoſticate Recovery, ſince Patients are ſometimes cut off by them. But the Prognoſtics of Death will be confirmed by Signs which preſage Death; but if the Signs are good we ſay that the future Criſis will be good, though not perfect, nor perhaps ſufficient to free the Patient from a Relapſe. We ſhould have here treated of good Criſes happening by Abſceſſes, but as we conſidered them when treating of the Prognoſtics from Abſceſſes, we ſhall refer the Reader to that Part of the Work.

CHAP. XI.

Of the Knowledge of fatal Criſes.

PERNICIOUS Criſes are known by Signs oppoſite to thoſe which diſcover the good and laudable Criſes. The bad Criſes are therefore ſuch as appear without any Signs of Concoction in the Beginning of the Diſeaſe, at which Time Nature can make no advantageous Excretions; but they will be more certain when they appear on the critical Days. Criſes are alſo bad when the Evacuations are not proportioned to the Nature of the Diſeaſe, or to the Parts affected; as when in an Inflammation of the Liver, the Blood flows from the left Noſtril, and from the right in Diſorders of the Spleen, as alſo when in Diſorders of the

the Uterus the Blood flows from the Noſtrils, and not from the Uterus itſelf. The Criſes are alſo bad in which the Excretions are bad in themſelves. Thus *Hippocrates* in 1. *Epid. Sect.* 2. when ſpeaking of certain Patients tells us, " that their pro-" fuſe Sweats were ſo far from relieving, that they " rather injured them ;" and a little after he ſays, " they ſweated a little about the Forehead and Cla-" vicles, but none of them all over the Body." And concerning the ſame Patients in *Lib.* 3. *Epid.* he tells us, " that they had continually cold, pro-" fuſe and unſeaſonable Sweats, diſcharged a great " Quantity of bad Urine, and were afflicted with " bad Colliquations ;" and in *Epidem.* 1. *Sect.* 2. he ſpeaks of ſome Patients, " who vomited a vi-" rulent Matter, and ſome of thoſe died ſudden-" ly." Hence when the Matter of the Diſeaſe is abſolutely crude, that is in the Beginning, before Nature has concocted the Humours, Criſes do not happen unleſs Nature is ſo irritated by the Strength and Celerity of the Diſeaſe, that ſhe is forced either to ſuccumb without a Struggle, or by encountering the Diſeaſe, to produce a fatal Criſis, by which, if the Patient is weak, he is ſuddenly cut off. Such a fatal Evacuation is known by its not correſponding to the Nature of the Diſeaſe, by its being too ſmall, or by its appearing in Conjunction with other mortal Signs; ſuch as Urine, which is black, turbid, or has a black Sediment, virulent Vomitings, or colliquative Stools, by which, as *Galen* in 3 *Epid.* informs us, many were cut off in a Plague, which formerly raged in *Rome.* Refrigerations of the Extremities are alſo bad Signs. Thus *Hippocrates*, in *Epid. Lib.* 1. *Sect.* 2. ſpeaks of certain Patients, " who always ſweated, but " not all over the Body, and their Extremities " were ſo cold, that they were ſcarce ſuſceptible " of Heat." A cold Breath expired from the

Mouth and Noſtrils is alſo a Sign of bad Criſes. It is to be obſerved that theſe fatal Criſes often deceive thoſe who are ignorant of Medicine, becauſe Nature being extinguiſhed by them, the Patients ſeem to reſt better, and be more eaſy; whereas a ſkilful Phyſician from the Languor of the Pulſe, the former, and other fatal Signs, knows that Death is not far off. Concerning ſuch Pulſes, *Galen* in *Lib.* 3. *de Criſibus*, ſpeaks in the following Manner. " In ſuch Declines as are to prove mor-
" tal, the Pulſe is weak, irregular and unequal;
" for together with other bad Signs, the febrile
" Heat is then extinguiſhed, by which the Pati-
" ents ſeem to be a little relieved; but a little af-
" ter, when they riſe to go to Stool, ſome fall
" into a Deliquium, and ſome covered with a ſmall
" Quantity of clammy Sweat, die without riſing." Beſides we affirm, that good and ſalutary Criſes are ſucceeded by a better State of the Patients, who actually become more quiet and eaſy, when the Symptoms of the Diſeaſe are either totally removed or greatly diminiſhed. In like Manner after bad Criſes, the Patients are rendered more unquiet and weak, and the Symptoms are greatly increaſed, unleſs Death ſucceeds immediately, or the Patients appear more quiet, and in a greater Meaſure free from the Diſeaſe and its Symptoms; in Conſequence of which Circumſtance thoſe ignorant of Medicine conclude that they are become better. Thus *Hippocrates*, in *Sect.* 2. *Aphor.* 27. tells us, " That we are not to truſt to ſuch Things
" as give Relief without any apparent Reaſon, nor
" much to fear thoſe Things which happen con-
" trary to expectation; for many of ſuch Things
" are uncertain, and generally do not laſt long." But this falſe Alleviation is known by its Inconſtancy and Shortneſs, the Patients alſo become more languid, and their Pulſes worſe, weaker and more

more unequal. Hence Death forthwith follows perfect Crises of the fatal Kind; whereas a Change for the worse succeeds imperfect Crises of the bad Kind. Thus *Hippocrates*, in *Lib.* 1. *Epid. Ægr.* 9. tells us of *Crito*, " That on the second Day he " had a red and distended Tumor over all his " Foot to the Ankle, together with black Pustules, " and an acute Fever: He was also very deliri- " ous, had frequent bilious Stools, and died the " third Day after the Disorder first seized him." And concerning the Woman *Dromeda*, he tells us, " That on the sixth Day she was seized with a Ri- " gor, soon after which she became hot, and sweat- " ed all over her Body, her Extremities were cold, " she became delirious, and her Respiration was " large and rare; and a little after he adds, " She " was seized with Convulsions in her Head and di- " ed suddenly." In 3. *Epid. Ægr.* 3. he says of *Pytho*, who lay above the Temple of *Hercules*, " That on the Morning of the tenth Day he " was speechless, excessively cold, and afflicted " with an acute Fever, and a profuse Sweat, by " which Means he was cut off." We now come to consider these bad and fatal Crises, which imperfectly produce the Death of the Patient; since they only bring on a Change for the worse, but do not suddenly put an End to the Patient's Life; and this happens, because the Strength of Nature struggles hard against the Shock of the Disease. Thus in perfect fatal Crises, Nature, on Account of her Weakness, succumbs at once to the Disease; whereas, when Nature is robust, the Disease must make several Struggles before it can subdue her; Great Strength therefore, in mortal Diseases, produces imperfect fatal Crises; whereas, less Strength lays a Foundation for perfect fatal Crises. The marks of perfect and imperfect Crises are the same, except that the imperfect generally happen after the

Concoction of the Humours is begun; that is, rather in the Augmentation than in the Beginning. As when, for Instance, the Excrements should be liquid, and afterwards be a little incrassated, but yet unequally, so as to appear thick one Day and liquid another; and with Respect to the Urine, when there is a good Change in the Sediment, the Colour or Contents, which however does not continue whilst the Urine forthwith returns to its former State of Crudity. In mortal Diseases, therefore, great Strength generally lays a Foundation for presaging many imperfect future Crises, before the Patient dies, especially when some Preludes of a Concoction appear; for it is impossible but vigorous Nature acting on the Disease, must change it by a gentle Concoction; for the Disease must necessarily be changed in some Measure by Nature. Hence in mortal Diseases, we frequently observe some Signs of Concoction in the Excrements, and especially in the Urine: In pestilential and other mortal Fevers, I have frequently observed the Urine either highly thin, red, or of a laudable Colour, and such as was thick and turbid became clear, and sometimes had a seemingly laudable Sediment before the Patient's Death. But these Preludes of Concoction are neither increased nor certain and fixed; for the Patients soon become worse. *Hippocr.* in *Sect.* 2. *Aphor.* 27. advises Physicians not to trust to these Preludes of Concoction in the Urine and the other Excrements, and says they are to be known from this, that they are not fixed and lasting: Besides I have learnt from Experience, that when Fevers appear with these Preludes of Concoction, even without any other mortal Signs; and the Fever continues whilst the Preludes of Concoction are not augmented, mortal Signs are to be expected, since it is an Indication that Nature on account of her Strength is able to support herself long: But as she cannot surmount the

Disease

Diſeaſe and its Cauſes, ſhe muſt at laſt ſuccumb and be extinguiſhed. Near *Padua* I had an Opportunity of obſerving this; in Conjunction with *Alexander Maſſaria*, and *Hieronymus ab Aquapendente*, two celebrated Phyſicians; for *Marina Teupola*, Niece to the Duke of *Grimani*, a young Lady of a ſanguine Habit, celebrated for her Virtue, and Spouſe to *Matthew Maurocenus*, having the Misfortune of an Abortion fell into a continual burning Fever, which began with the moſt violent Symptoms, ſuch as a violent punctory Pain of the Head, perpetual Watchings, a Vertigo, an inſatiable Thirſt, and continual Toſſing and Reſtleſſneſs, all which, in Conjunction with a crude State of the Urine, preſaged a ſpeedy Death; yet tho' Nature was not able to rout the Diſeaſe, ſhe had a Criſis by means of an Hemorrhage from the left Noſtril, accompanied with thick, red Urine with a thick Sediment, a Vomiting, copious, pituitous, tough, and bilious Stools, which were ſometimes porracious, and ſometimes æruginous; and a profuſe Sweat. This Criſis however was not ſucceeded by a Concoction either of the Urine or of the Stools, which were diſcharged in the ſame State till the Patient's Death: And tho' ſhe ſeemed to be frequently relieved by the Hemorrhage from the Noſe, the Vomits and the Sweats, yet theſe Excretions never had a due Concoction, or if they had any Degree of Concoction, it only laſted for a Day, and then the Excrements returned to their former Degree of Crudity. Hence it happened that the Patient in Conſequence of her great Strength, ſtruggled long with the Diſeaſe, and had many imperfect Criſes, which I always prognoſticated to be mortal, becauſe the begun Concoctions in the Excrements were never augmented, and the Patient was never freed from the Fever; ſo that the Diſorder increaſing and the Patient's Strength gradually decaying, ſhe died after many imperfect Criſes.

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This History I have added to the others upon Crises, that Physicians might the better know the Signs of imperfect and mortal Crises, which in the first Place happen, when the Matter of the Disease is absolutely crude; secondly when the begun Concoctions are not augmented, do not continue and appear unequally; thirdly when the Patients are not totally freed from the Fever. This *Hippocrates* in *Lib.* 2. *Epidem. Sect.* 1. calls a Crisis which determines nothing, or according to *Galen*, *a Crisis either of a dubious Nature when accompanied with no mortal Sign, or fatal when it appears with a mortal Sign:* Fourthly Crises are fatal when the Evacuations are immoderate, afford no Relief, and are not proportioned to the Quantity of Humours to be evacuated. Thus *Hippocrates* in 1. *Epidem. Sect.* 2. tells us, "that such Crises were succeeded by "Abscesses, which were either greater than the "Patients could support, or smaller than that they "could be of any Use, but immediately returned "inwards, by which Means the Patients became worse." Profuse or scanty Sweats after the Excretions are also bad Signs. Thus *Hippocrates* in *Epidem.* 1. speaks of certain Patients, "whose profuse "Sweats were so far from relieving, that they ra-"ther injured them," and in the same Book *Sect.* 1. he speaks of other Patients "who always sweat-"ed, but not over the whole Body, and a little after "in *Sect.* 2. he speaks of some, "who sweated a lit-"tle about the Forehead and Clavicles, but none of "them all over the Body." Some Excretions of Blood are also bad Signs. Thus *Hippocr.* in *Epid. Lib.* 1. mentions some who had a very small Excretion of Blood from the Nose, who died; and a little after he adds, "For *Philiscus*, and *Epame-*"*non*, and *Silenus*, who had a few Drops of "Blood discharged from the Nose on the fourth "and fifth Days died;" and with Respect to

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bad Stools, *ibid. Sect.* 1. he ſpeaks of ſome, " who " had frequent, ſcanty, bilious and corroſive " Stools." Theſe I have obſerved in my dear Wife *Guadagnina*, when labouring under a burning Fever, which proved mortal to her. Colliquative Stools are alſo bad, Thus in *Epidem.* 1. *Hippocrates* tells us, of a certain Conſtitution in which all who laboured under either acute or chronical Diſeaſes, died principally of a Diſorder of the Belly, and the like holds of other Evacuations: All thoſe Evacuations are alſo bad which do not correſpond to the Nature of the Diſeaſe, when for Inſtance, in pituitous Diſorders the Excretions are purely bilious, or when in bilious Diſeaſes the Evacuations are purely pituitous, but theſe we have already conſidered with ſufficient Accuracy. Thoſe Excretions are alſo bad which do not correſpond to the Parts affected, as when the Blood in a Diſorder of the Uterus flows from the Noſe, or from the left Noſtril, if the Liver is affected, or from the right when the Spleen is diſordered. Beſides, the imperfect Criſes are diſtinguiſhed from the perfect by this, that the former happen without any Signs of Concoction, and when the Patient is leſs ſtrong. Hence when Nature cannot alter and concoct the Matter of the Diſeaſe, ſhe muſt in Conſequence of her Weakneſs ſuccumb to the firſt Shock of the Diſorder: But imperfect Criſes happen in robuſt Conſtitutions, which have been often attacked by Diſeaſes, and cannot be overcome except in a long Time; on which Occaſion when theſe Conſtitutions attempt ſomething againſt the Diſeaſe, they are themſelves in ſome Meaſure altered. Hence we ſometimes obſerve ſlight Signs of Concoction, which however are neither augmented, nor continue long. Theſe differ from ſalutary Criſes, in this, that in the former the Concoction is neither increaſed nor long continued. In ſalutary Criſes, the Signs of Concoction

coction are much more manifeſt, daily increaſed and ſteady; and by ſuch Criſes the Patients are rendered better, or their Fever is either totally terminated or greatly alleviated. Thus it is peculiar to fatal imperfect Criſes, to happen only to the moſt robuſt and vigorous Conſtitutions: An Inſtance of this we have in the Woman who lay the in *Forum mendacium*, who being young and ſtrong had before her Death many imperfect Criſes; for *Hippocrates* in *Epidem.* 3. ſpeaks of her in the following Manner. " The firſt Day after her Delivery of a male " Child, ſhe was ſeized with a burning Fever, from " the Beginning, of which ſhe was afflicted with " Thirſt, a Pain about her Heart, a Nauſea, and " Drineſs of her Tongue: Her Stools were irregular, " thin and ſcanty, nor could ſhe ſleep. Next Day " ſhe was ſeized with ſome Degree of a Rigor: She " had a moderate cold Sweat about her Head: On " the third Day with great Pain ſhe diſcharged ma- " ny thin and crude Stools: On the fourth ſhe was " ſeized with a Kind of Rigor, all the Symptoms " were exaſperated, and ſhe was deprived of Sleep: " On the fifth Day ſhe was in a very uneaſy Situ- " ation: On the ſixth, Things continued as before, " and ſhe diſcharged copious and moiſt Stools: On " the ſeventh, ſhe had a Kind of Rigor, an acute " Fever and an inſatiable Thirſt, ſhe was reſtleſs, " and towards Evening had a cold Sweat over " all her Body, and a Coldneſs of her Extremities, " which did not return to their natural Heat. " Again towards Night ſhe was ſeized with a Ri- " gor, her Extremities did not become warm, ſhe " did not ſleep, and was a little delirious, but ſoon " after reſumed her Reaſon: On the eighth, about " Noon the Heat of her Extremities returned, ſhe " was thirſty, comatous and vomited a ſmall Quan- " tity of bilious and yellowiſh Matter. In the

" Night

"Night ſhe was in a deplorable Situation, ſince ſhe "ſlept none and diſcharged a large Quantity of "Urine without being conſcious of it: On the ninth "all the Symptoms were abated. Towards the "Evening ſhe became comatous, was ſeized with "a Kind of Rigor, and vomitted a bitter bilious "Matter: On the tenth ſhe had a Rigor, the Fe-"ver was augmented, and ſhe ſlept none; in the "Morning ſhe diſcharged a large Quantity of "Urine, which had no Sediment, and her Extre-"mities became warm: On the eleventh ſhe vo-"mited virulent bilious Matter, ſoon after which "ſhe was ſeized with a Rigor, and her Excre-"ments again became cold: Towards Night ſhe had "a Rigor, was ſeized with a cold Sweat, vomit-"ed a great deal, and was very uneaſy in the "Night: On the twelfth ſhe vomited a large "Quantity of black and fetid Matter, had a vio-"lent Hiccup, and an inſatiable Thirſt: On the "thirteenth ſhe vomitted much black and virulent "Matter, and about Noon was ſeized with a Ri-"gor: On the fourteenth ſhe had an Hemorrhage "from the Noſe, and died, though ſhe was only "in the ſeventeenth Year of her Age." This Woman's Caſe is of great Importance to know imperfect mortal Criſes; for all the beforementioned Signs of imperfect mortal Criſes are obſervable in it. But we now proceed to conſider the various Species of Criſes.

CHAP. XII.

Of the Knowledge of thoſe Criſes which are about to happen by Abſceſſes, and ſuch as are produced by Excretion.

THE Knowledge of particular Criſes is of great Importance in prognoſticating the Death

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or Recovery of the Patient, ſince we ought to foreſee, whether they proceed from ſome Abſceſs, or from ſome Excretion: We ſhall firſt, therefore, treat of thoſe Criſes which happen by an Abſceſs, and then of ſuch as are produced by an Excretion of the Humours. But as the Word Abſceſs is equivocal, and by *Hippocrates* uſed in various Senſes, theſe are previouſly to be known and aſcertained. By the Word Abſceſs then, *Hippocrates* ſometimes means a Tranſlation of Humours from one Part of the Body to another; theſe he calls Abſceſſes by Effluxion, and in *Lib.* 2. *Epidem. Sect.* 1. tells us, "That thoſe are beſt "which happen by Effluxion; Blood, for Inſtance, "from the Noſtrils, Pus from the Ears, Spit and "Urine." In this Senſe he called Dyſenteries, Lienteries, a Teneſmus and Sweats, Abſceſſes. At other Times, by the Word Abſceſs, he means a Suppuration. Thus in his Prognoſtics he tells us, "That Tumors of the Abdomen are leſs ſubject "to terminate in Abſceſſes, than thoſe of the Præ-"cordia," for according to *Galen*, he here means a Suppuration. Thirdly, by Abſceſs he means a Defluxion of Humours to any Part of the Body, by which any Pain or Tumor is excited. In this Senſe we may properly give the Name Abſceſſes to all cutaneous Diſorders, eſpecially when any Thing ariſing from an internal Cauſe appears under the Skin, ſuch as all Tumors. We ſhall now treat of thoſe Criſes produced by Abſceſſes, which happen, when the Humours are forced from the internal Parts to the Skin, which they either raiſe into a Tumor, or ſtain with Spots.

For this Purpoſe we ſhall firſt enquire what Criſes happen by Abſceſſes, and what by the Excretions of the Humours. Theſe we may eaſily be acquainted with, if we know the Direction and Tendency of the Humours, whether, for Inſtance, they will

will only be tranſlated from one Part to another, or whether beſides ſuch a Tranſlation, they will be conveyed through thoſe Emunctories which are deſtined for the Evacuation of the Humours. In this latter Caſe we ſay Criſes happen by Excretion, whereas in the former they are produced by Abſceſſes, concerning which *Galen* in *Lib. 3. de Criſibus*, ſpeaks in the following Manner. " In determining the Species of the Criſes, we ought carefully to conſider the Inclination of Nature, which is manifeſtly ſhewn by *Hippocrates* in *Prognoſt.* partly when mentioning a gnawing Pain about the Mouth of the Stomach, and a Rigor, in which Diſorders a Vomiting is to happen; and partly when ſpeaking of a Difficulty of Breathing, and an Hallucination of the Eyes, in which Diſorders a Criſis is to be expected by an Hemorrhage from the Noſe. Beſides *Hippocrates* in *Prognoſt.* when diſtinguiſhing between the different Kinds of Urines and Excrements, ſays, if the Excrements are neither bilious nor thin, and unmixed, nor the Urine copious, and with a large Sediment, it is manifeſt that the Diſorder will be carried off by theſe Ways. But if theſe Things happen and the Diſorder is protracted, though with ſalutary Signs, an Abſceſs is to be expected." But *Galen* in 3. *Prognoſt.* tells us, " that when the Strength of the Patient is ſufficient, Diſeaſes ariſing from hot Humours are terminated by Excretion." But contrary to theſe are the Diſeaſes in which the Faculty is weak, and the Humours cold, ſince theſe are neither terminated by Excretion nor Abſceſs, but either corrupt and ſpoil the Body, or require a long Time before they are concocted. But hot Humours do not need a ſtrong Faculty to form them into Abſceſſes, though cold Humours do. Thus the Species of Criſes are known from the Tendency of the Humours; for

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it is a Sign that Diſeaſes will terminate in Abſceſſes, when there are neither Signs of Vomitings nor Hemorrhages, that is, neither copious Eruptions of Blood, Stools, Sweats, nor Diſcharges of Urine. The ſame Event may be alſo conjectured at from the Strength of the Patient and the Nature of the Humours; for hot Humours more eaſily produce Excretions, than ſuch as are cold, but Abſceſſes happen when Nature has no Inclination to Excretion, nor have hot Humours Occaſion for a ſtrong Faculty, becauſe they naturally and eaſily move from Place to Place; but crude and groſs Humours in robuſt Perſons, if the Diſeaſe is long protracted, and not accompanied with mortal Signs, generally produce ſome Abſceſs. Thus *Galen* in 3. *Prognoſt. Comm.* tells us, "that Nature generally uſes to "throw ſuch Humours into the more ignoble "Parts of the Body, when ſhe cannot expel them "by Excretion;" for it is already obſerved that thin and hot Humours are beſt diſpoſed for Excretion; whereas ſuch as are crude and groſs, are carried off by Abſceſſes or by Concoction. But we now come to enumerate thoſe Signs by which future Abſceſſes in Diſeaſes are known. *Galen* then in *Lib.* 3. *de Criſibus*, *Cap. ult.* tells us, that if the Criſes happen in the firſt Periods of acute and hot Diſeaſes, an Excretion is to be expected, but if the Diſeaſe is chronical, and the Urine has for a long Time been thin and crude, a future Abſceſs may be prognoſticated. But theſe Signs are not ſufficient for prognoſticating Abſceſſes; for we muſt beſides, carefully obſerve whether the Diſeaſe has ſalutary Signs, and the Patient has ſufficient Strength, ſince we have already obſerved that a weak Faculty cannot convey crude and groſs Humours from the Viſcera to more ignoble Parts, where they form Abſceſſes. It is certain that long and chronical Diſeaſes are cheriſhed by groſs

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and crude Humours, and ſuch Diſorders are not, according to *Galen*, eaſily brought to Excretion, even tho' Nature ſhould be very robuſt; hence the Humours muſt neceſſarily either corrupt the Patient's Body, or if he is to recover, there will Abſceſſes be formed about ſome of the ignoble Parts, or ſuch Humours will be gradually concocted, though this Concoction muſt alſo be accompanied with an Excretion, which according to *Galen* generally happens by Urine, and rarely by Stool.

The Signs of future Abſceſſes *Galen* has comprehended in the following Words. "If the Humours are formed into Abſceſſes, the common "Symptoms of all ſuch Caſes are, provided they "are not dangerous, that the Diſeaſe is not terminated, nor much Urine with a copious Sediment "diſcharged, but only ſuch as is crude and thin." *Hippocrates* in *Lib.* 2. *Prog. Text.* 26. tells us, "that "if the Fever continues, and the Pain does not "ceaſe, if the Pus is not expectorated by Spit, if "the Stools are not bilious and thin, but unmixed, if the Urine is not copious, thick, and with "a large Sediment, in ſuch Patients Abſceſſes are "to be expected." With Reſpect to thoſe Urines which indicate Abſceſſes in *Secund. Prognoſt. Text.* 34. he tells us, "that they who for a long Time "diſcharge a crude and thin Urine, but have other "good and ſalutary Signs, may expect an Abſceſs in "the Region below the Diaphragm." And in *Lib.* 3. *Prognoſt.* theſe Words occur: "If the Fever is protracted and the Pain abated, we may, "on Account of ſome Inflammation, or ſome other evident Cauſe, expect an Abſceſs, eſpecially "about the inferior Joints, and accompanied either "with Tumor or Pain." *Galen* informs us, that future Abſceſſes are to be expected when a Fever is protracted, neither on Account of the Importance of the Part affected, nor an Error in Regi-

men; for a Fever muſt neceſſarily be protracted by thick and crude Humours, which Nature frequently throws from the Viſcera upon ſome more ignoble Parts. Thus *Hippocrates* in *Sect.* 4. *Aph.* 44. tells us, " that Perſons who have laboured under long " continued Fevers, are at laſt ſeized with Tuber- " cles or Pains about the Joints." Hence when the Fever is protracted beyond the twentieth Day, which according to *Hippocrates* in *Prognoſt. Text.* 25. is the Period of acute Diſorders, if the Diſeaſe is not mortal, and a thin crude Urine is for a long Time diſcharged, we may expect that the Fever will terminate in an Abſceſs, eſpecially when the Evacuation of ſome groſs Humour ſucceeds; for by this Means the Diſeaſe is terminated. Accordingly *Hippocrates* in *Sect.* 4. *Aph.* 74. tells us, " that Perſons in whom Abſceſſes about the Joints " are expected, are freed from that Misfortune by " a long continued and copious Diſcharge of groſs " and white Urine like that evacuated in Fevers, " which Symptom in ſome begins on the fourth " Day and is accompanied with Laſſitude." But we are carefully to advert to the Signs which determine that the Diſorder is ſalutary: *Hippocrates* in *Lib.* 3. *Prognoſt. Text.* 10. gives us the following Caution with Reſpect to this; " the Patient, ſays " he, who is about to recover breathes eaſily, is free " from Pain, ſleeps in the Night Time, and has " other ſalutary Signs." Theſe then are the common Signs of future Abſceſſes, but the particular Prognoſtics of Abſceſſes in the ſuperior or inferior Parts are by *Hippocrates*, in *Lib.* 2. *Prognoſt Text.* 62. enumerated in the following Manner. " Thoſe " Abſceſſes which happen in the inferior Parts are " preceded by an Inflammation about theſe Parts; " whereas thoſe which happen in the ſuperior Parts, " are preceded by a preternatural Softneſs of the " Ilia, which however are without Pain: But if

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" the Patient breathes for ſome Time with Difficul-
" ty, and without an apparent Cauſe, this Symptom
" will ſoon ceaſe." *Galen* in *Lib.* 3. *de Criſibus*, *Cap. ult.* tells us, " that Abſceſſes are to be expect-
" ed in the inferior Parts, when there is any Heat
" or Inflammation about the Præcordia; whereas
" in Abſceſſes of the ſuperior Parts the Præcor-
" dia are continually ſoft, though without Pain.
" The Patient will alſo for ſome Time have a Dif-
" ficulty of Breathing, without any manifeſt Cauſe,
" but this Symptom will ſoon ceaſe."

A little after *Galen* enumerates the Signs of future Abſceſſes in particular Parts in the following Manner. " If the Diſeaſe is not long protracted, if a
" Difficulty of Breathing ſupervenes and ſoon ceaſ-
" es, and if this is ſucceeded by an Heavineſs and
" Pain of the Head, a Deafneſs and turbulent
" Sleep, Abſceſſes will neceſſarily happen in the
" Glands behind the Ears. But if the Diſeaſe is of
" long ſtanding, and none of theſe Signs have ap-
" peared, but in ſome of the inferior Parts, either
" a Senſe of Weight, Tenſion, Inflammation or
" Pain are perceived, Abſceſſes are to be expected
" in the inferior Parts." The Author of *Prorrhet. Lib.* 1. *Text.* 168. tells us, " that turbulent Sleep,
" an Head-Ach and Deafneſs, immediately ſeizing
" the Patient, are Signs of an approaching Inflam-
" mation of the parotid Glands." But the other Signs of Inflammations of the parotid Glands we ſhall here omit, becauſe we ſhall treat more acccurately of them when we conſider the Parotids. We now proceed to treat of thoſe Criſes, which proceed from ſome Excretion, whether an Hemorrhage, Vomiting, Stool, Sweat, or Diſcharge of Urine.

CHAP. XIII.

Of prognosticating Crises from Hemorrhages or Eruptions of Blood.

WE now come to consider those Crises which are observed to happen by an Excretion of the Humours, and which are to be known from the Constitution of the Weather, the Nature of the Patient, the Species of the Disease, and the Nature, Motion, and Tendency of the Humours. When, considering the Constitution of the Weather, we have before observed that the Crises arising from Excretions and Abscesses were to be known by the Nature of the Patient, the Species of the Disease, and the Motion of the Humours: Wherever therefore Nature and the Humours incline, there Abscesses will necessarily be formed, as we are informed by *Galen* in *Lib. de Crisibus, Cap. ult.* But as Nature and the Humours may have a Tendency two Ways, one to the internal, and the other to the external Parts, so when the Humours incline to the external Parts, the Crises happen by Sweat or Hemorrhages, which may be prognosticated from an Observation of the Pulse and Hypochondria. But when Nature and the Humours have a Tendency to the internal Parts, the Crises happen by Vomit, Stool, Urine, and the hemorrhoidal or menstrual Discharges. But we shall first treat of the Crises which happen by an Hemorrhage, because these often terminate Diseases in a safer and more effectual Manner than the others; for many, by copious Hemorrhages from the Nose, have been freed from their Disorders, even though they had very bad Symptoms. Thus *Hippocrates* in *Epidem. Lib.* 1. *Ægr.* 7. tells us, when speaking of *Meton*, "that "large Hemorrhages from the Nose generally af-

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" ford Relief; for *Meton* ſeemed to have his Criſis
" brought on, and his Life preſerved only by an
" Eruption of Blood from the Noſe, though his
" Symptoms were ſeemingly of a fatal Kind." We ſhall therefore begin with thoſe Signs which prognoſticate future Hemorrhages from the Noſe. Let us then ſuppoſe a Perſon labouring under a burning Fever, a Synochus, a ſimple Fever attended with an Inflammation of ſome of the Viſcera, or one of a very violent Nature happening to an hot Conſtitution; in the the Summer Time and under an hot Regimen: in theſe Caſes, a Criſis by Excretion is to be expected, and if there is to be an Hemorrhage, all the Symptoms will be preſent which attend a Redundance of Blood, which is conveyed through the Veins into the Head. Hence if it is conveyed through the natural and proper Veſſels to the Head, the Patients will ſuddenly be ſeized with a Tenſion of the Hypochondria, and ſometimes with a difficult Reſpiration upon that Account; but this ſucceeds the Tenſion of the Hypochondria; for when the Blood paſſes ſuddenly through the Veſſels deſtined for Reſpiration, the Patients are ſeized with a Difficulty of Breathing, which however ſoon ceaſes; for when the Blood arrives at the Head, the inferior Parts are relieved, and the Head afflicted with a Senſe of Weight and Pain, whilſt a Kind of Tenſion is perceived in the Neck, as alſo a Ringing of the Ears, and ſometimes Deafneſs. The Sight becomes dim and flaſhing, and the Eyes, Cheeks and Noſtrils red. Theſe are the Signs by which we prognoſticate an Hemorrhage from the Noſe. Thus *Hippocrates* in *Lib.* 1. *Epid. Sect.* 2. tells us, " that in burning Fevers,
" when a Pain of the Neck, a Senſe of Weight in
" the Temples, a Dimneſs of the Sight, and a
" Tenſion of the Hypochondria without Pain ap-
" pear, an Hemorrhage from the Noſe will hap-

" pen." And in *Lib.* 3. *Prognoſt.* he tells us, that vi-
" olent and continual Head-Achs, accompanied with
" a Fever and any fatal Signs, are abſolutely mor-
" tal: But if the Patient is to recover, we are to
" expect an Hemorrhage from the Noſe, between
" the firſt and ſeventh Day. The ſame Excretion
" is alſo to be expected afterwards, and it is a ſa-
" lutary Sign when Pus is evacuated from the
" Noſtrils or Ears. But if the Diſeaſe is protract-
" ed to the twentieth Day with a Pain of the
" Head, then an Hemorrhage from the Noſe is
" rarely to be expected, but rather a Suppuration
" or Abſceſs in the inferior Parts. During the
" Time the Hemorrhage is expected, its Probabi-
" lity is augmented by a continual and vehement
" Pain in the Temples and Forehead. Hemor-
" rhages alſo happen moſt frequently in Perſons
" under thirty-five Years of Age, but Suppurations
" in ſuch as are older."

The Signs of future Hemorrhages are in *Lib.* 3. *Prognoſt. Text.* 33. more clearly expreſſed in the following Manner, " They who labour under Fe-
" vers, accompanied with a Dimneſs and Flaſhing
" of the Sight, a gnawing about the Mouth of the
" Stomach, and a Tenſion of the right or left Hy-
" pochondrium, without Pain and Inflammation,
" may expect an Hemorrhage from the Noſe in-
" ſtead of a Vomiting. But it is to be obſerved,
" that Hemorrhages happen moſt commonly to
" young Perſons, whilſt thoſe who are thirty years
" of Age or more are to expect Vomitings." To theſe are added other Signs both in *Prorrhet.* and in *Coac. Præſag.* for in *Prorrhet. Lib.* 1. *Text.* 135. we are told, " That Patients afflicted with a Hea-
" vineſs and Pain of the Sinciput, and are trou-
" bled with Watchings, generally have Hemor-
" rhages from the Noſe, eſpecially if they have a
" Tenſion of the Neck." And in *Text.* 136. of the

the ſame Book, we are told, " That they who " are ſuddenly ſeized with Watchings and Inquie- " tudes have an Hemorrhage, whether they have " had any Evacuation of Blood before the Pains " of the Neck appeared or not." In *Prorrhet. Lib.* 1. *Text.* 137. we are alſo told, " That an in- " tenſe Redneſs of the Eyes prognoſticates an " Eruption of Blood." And afterwards in *Text.* 143. we are told, " That after Concuſſions of the " Head, and Ringing of the Ears, Hemorrhages " are to be expected." Ibid. *Text.* 144. it is ſaid, " That Palpitations of the Abdomen, by which, " according to *Galen*, are meant the Pulſations of " the Artery paſſing through the Spine, accompani- " ed with an oblong and tumid Tenſion of the Hy- " pochondria, indicate an Eruption of Blood." And ibid. *Text.* 147. we are told, " That a Ten- " ſion of the Hypochondria, accompanied with an " Heavineſs of the Head, Deafneſs, and Flaſhing " of the Eyes, denote an Effuſion of Blood." And in *Coac. Præſag. Text.* 142. it is ſaid, " That they " who in Fevers have a Redneſs of the Face, a " violent Head-ach, and a preternatural Pulſation of " the Arteries, have generally an Hemorrhage." And in *Lib.* 3. *Coac.* 111. we are told, " That they " who are ſeized with Watching and Anxiety " have an Hemorrhage from the Noſe, whether " they have had any previous Excretion of Blood " or not." And ibid. *Coac.* 131. we are told, " That in a burning Fever, a ſupervening Ring- " ing of the Ears, a Dimneſs of Sight, and a " Senſe of Weight about the Noſtrils, denote a " violent and laſting Delirium, unleſs a copious " Hemorrhage from the Noſe ſucceeds." And in *Lib.* 5. *Coac.* 167. it is ſaid, " That Pulſations in " the Head, and a Ringing of the Ears, prog- " noſticate an Hemorrhage." Ibid. *Coac.* 195. theſe Words occur, " They who labour under a Senſe

" of Weight in the Head, a Pain in the Sinciput, " and Watchings, have an Hemorrhage from the " Nose, especially if they perceive any Tension of " their Necks." Ibid. *Coac.* 195. it is said, " That " Deafness, a Sense of Weight in the Head, a " Tension of the Hyochondria, and a Flashing " and Perturbation of the Eyes, denote a future " Discharge of Blood." These are the Signs of Hemorrhages taken from the Epidemics of *Hippocrates*, as also from the Prognostics, the Prorrhetics, and the *Coac. Præsag.*; and from these Signs we know such Crises as will happen by Hemorrhages from the Nose. Thus burning, acute and violent Fevers, Inflammations of the Præcordia, and especially of the Liver and Spleen, as also phrenitic Inflammations, are frequently terminated by Hemorrhages; sudden Watchings and Inquietudes are also Signs of Hemorrhages, though they are more commonly the Forerunners of future Crises, and when these Signs appear, a Crisis may indeed be expected, but whether it will happen by an Hemorrhage, Vomiting, or any other Way, must be determined from peculiar Signs, after the Appearance of which, if an Hemorrhage, Vomiting, Purging, Sweats, or any other Evacuation begin on a criticalDay, we may perhaps, from such Signs, prognosticate a similar Evacuation. Thus in *Lib.* 3. *Coac. Præsag. Text.* 111. we are told, " That they who are suddenly seized with Watch- " ings and Uneasiness have an Hemorrhage from " the Nose, whether they had any previous Eva- " cuation of Blood or not." *Galen* to these two Signs added a Pain of the Head, so that in Head-achs, sudden Watchings and Inquietude denote an Hemorrhage; and the more if the Blood has begun to be evacuated before. But among the most peculiar Signs is the Head-ach, without which an Hemorrhage rarely happens. Thus *Hippocra-*

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tes in 1 *Prognoſt. Text.* 22. tells us, "That in the "Beginning a Diſcharge of Blood from the No- "ſtrils is very beneficial, but we ought to enquire "whether the Patient is afflicted with a Pain of the "Head, and Dullneſs of the Eyes; for if any "of theſe Signs are preſent, an Hemorrhage may "be expected." In *Epid. Lib.* 1. *Sect.* 2. a Senſe of Weight in the Temples is mentioned as a Prognoſtic of Hemorrhages: In *Prognoſt.* a violent Pain of the Head: In *Prorrhet. Lib.* 1. *Text.* 135, 137. a Pain of the Sinciput, and ſometimes a Pain of the Neck, and Heavineſs of the Head. And in *Coac. Præſag.* a violent Head-ach, an Heavineſs of the Head, and a Pain of the Sinciput; but we muſt add, that Heat, Diſtenſion, and Pulſation are among the principal Signs which precede an Hemorrhage.

Hippocrates in *Lib.* 1. *Epid. Ægr.* 7. ſays that *Meton*, who on the fourth Day had two Hemorrhages from his Noſe, on the third Day had an Heavineſs of his Head, which was afterwards augmented. And in *Epidem. Lib.* 3. *Ægr.* 6. *Pericles*'s Eruption of Blood from the Noſe is ſaid to have been preceded, firſt by a Pain, and then by an Heavineſs of the Head. But *Galen*, in *Lib.* 3. *de Criſibus*, *Cap. ult.* determines, that this is not the peculiar Sign of Hemorrhages, but common to them, and Vomitings: Other Signs, which according to him prognoſticate Vomitings, are gnawing Pains: We may alſo add, that Hemorrhages are not always preceded by Head-achs, but they can hardly happen without ſome Senſe of Weight in the Head, ſince a large Quantity of Blood cannot long remain in the Head without producing that Effect, though at the ſame Time a large Quantity of Blood aſcending, and forthwith making an Eruption, produces little or no Heavineſs in the Head; this is often obſerved in ſuch Fevers as are not of the acute Kind. This

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happened to myſelf, who in a quartan Fever, as yet not terminated, ſuddenly vomited up and diſcharged from my Noſtrils, at leaſt, ſix Pounds of Blood, by which I had a perfect Criſis; but this is a very rare Caſe: Beſides an Hemorrhage from the Noſe rarely happens in acute Fevers, without ſome previous Pain or Senſe of Weight in the Head; after the Pain of the Head ſucceed Deafneſs, and a Ringing of the Ears, which are alſo generally Signs of Hemorrhages from the Noſe.

My own copious Hemorrhage was preceded by a troubleſom Ringing of the right Ear. This Sign is mentioned by *Hippocrates*, in *Prorrhet. Lib.* 1. *Text.* 143, 147. and by the Author of the *Coac. Præſag.* in *Text.* 194, 195. This Sign *Hippocrates* in *Epidem. Lib.* 3. *Ægr.* 7. ſaw in the Virgin of *Abdera*, and in *Heropytus*, ibid. *Ægr.* 9. before the Eruption of the Blood. To theſe Signs we may alſo add the Pulſation of the Veins of the Head, concerning which the Author of *Coac. Præſag. Lib.* 5. *Text.* 142. ſpeaks in the following Manner, "They "who in Fevers have a Redneſs of the Face, an "intenſe Pain of the Head, and a Pulſation of "its Arteries, have generally an Hemorrhage;" for the Vibration and Agitation of the Arteries is a Sign that the Blood is in a fervid State, and ſtimulated to evacuate itſelf. To theſe Signs we alſo add the Tenſion of the Neck, mentioned by the Author of *Coac. Præſag.* in the Part before quoted; as alſo the Palpitation of the Abdomen, mentioned by the Author of *Prorrhet.* and by which he probably means the Pulſation of the Artery running through the Spine.

Hitherto we have not treated of the Signs peculiar to Hemorrhages, but only of ſuch as are common to other Excretions; for Head-achs, Watchings, Deliriums, Tenſions of the Parts of the Head, Deafneſs, Ringing of the Ears, and pre-

preternatural Pulſation of the Arteries, are critical Signs, not common to one, but to many Species of Criſes. But the following are more peculiar Signs of Hemorrhages, an oblong (and according to the Author of *Prorrhet.*) tumid Tenſion of the right or left Hypochondrium, which however does not always happen, ſince ſometimes, according to *Galen*, all the Muſcles between the Thorax and Pubis are only rendered tenſe. But neither is every Tenſion of the Hypochondria a Sign of an Hemorrhage, but only that which happens in the right or left Hypochondrium; which *Hippocrates* in *Epidem. Lib.* 1. *Sect.* 2. and in *Prognoſt.* mentions as a Sign of an Hemorrhage. The ſudden Appearance of a Difficulty of Breathing contributes a great Deal to prognoſticate an Hemorrhage. Thus *Galen* in *Lib.* 3. *de Criſibus*, tells us, "That "there is a certain Tenſion of the Præcordia "without Pain, which is no inconſiderable Sign "of the Tendency of the Blood to the ſuperior "Parts, as alſo a Difficulty of Breathing which "happens by the paſſing of the Blood into the "Thorax." When therefore, according to the ſame *Galen*, in 1. *Epidem.* there is any Tenſion without either Pain or Inflammation in the right or left Hypochondrium, an Hemorrhage from the Noſe is to be expected; for a Tenſion of the Hypochondria without Pain is a Sign that the Blood is impetuouſly conveyed into the Head; and if the Hypochondria are ſeized with Pain, an Inflammation of the Viſcera ſucceeds. When a Tenſion of the Hypochondria happens by the Impulſion of the Liver, and the Heat of the Head attracting the Blood upwards, an Eruption of Blood is alſo to be expected. A tumid State of the Hypochondria, and a conſequent Difficulty of Breathing, are likewiſe frequently produced by a Redundance of Blood, although it does not paſs through

the

the Thorax. I knew a certain Woman of *New Cairo* in *Ægypt*, who having her Menſes obſtructed, every Month diſcharged the Blood, which ought to have been evacuated in that Manner, by her Noſtrils; and during the Aſcent of the Blood, ſhe was afflicted with a Tenſion of both Hypochondria without Pain, and with a Difficulty of Breathing. It is alſo to be obſerved, that both the Tenſion of the Hypochondria, and Difficulty of Breathing, happen ſuddenly, and ſoon after ceaſe. Thus *Hippocrates*, in 2 *Prognoſt.* tells us, "That if the "Patient for ſome Time breathes with Difficulty, "without any manifeſt Cauſe, this Symptom ſoon "ceaſes."

Next to the Tenſion of the Hypochondria, another Sign is to be drawn from the Sight of the Patient. Thus *Hippocrates*, in *Epid. Lib.* 1. *Sect.* 2. tells us, "That a Dimneſs of the Sight ſeizes "thoſe who are about to have an Hemorrhage "from the Noſe." And in *Prognoſt.* it is ſaid, "That a Dimneſs of Sight prognoſticates an He-"morrhage." *Galen* alſo in *Lib.* 3. *de Criſibus*, and *de Præſ. ad Poſthumum*, tells us, "That a flaſh-"ing of the Eyes is obſerved, when a yellow Hu-"mour is lodged in them, and the Sight be-"comes dim, and the Breathing difficult, when too "large a Quantity of Blood is conveyed to the "ſuperior Parts." Sometimes Patients, who are about to have Hemorrhages, are frighted by red Spectres, as happened to the *Roman* Youth, mentioned by *Galen* in *Lib. ad Poſthumum*, who, before the Hemorrhage from his Noſe, was ſtartled at the Appearance of a red Serpent, creeping towards him on the Bed-Clothes, for which Reaſon he endeavoured to jump out of Bed; ſometimes alſo, on Account of the copious Hemorrhage, Tears are, according to *Galen*, involuntarily diſcharged. Thus *Hippocrates*, in 1. *Epid. Sect.* 2. tells

us, " That in acute and burning Fevers, where " the Signs are not mortal, if Tears are involun- " tarily ſhed, an Eruption of Blood from the Noſe " is to be expected; whereas ſuch Tears, with other " bad Signs, do not prognoſticate an Hemorrhage, " but Death." Hence, in acute Fevers accompanied with good Signs, involuntary Tears prognoſticate an Hemorrhage, which is confirmed by *Galen*, in *Lib.* 3. *Prognoſt. Com.* 33. and in *Lib.* 6. *Epidem.* But we have treated of this Sign with great Accuracy in the ſubſequent Book. Having explained the previous Signs, we now come to conſider the Hemorrhage itſelf; which never happens without a preceding Redneſs of the Face, all the Parts of which, eſpecially thoſe near the Noſe, become red and high coloured by the Preſence of the Blood. Thus in *Lib.* 1. *Prorrhet. Text.* 137. we are told, " That an intenſe Redneſs " of the Eyes, and a Pain of the Neck, denote " a ſubſequent Hemorrhage." *Galen* alſo tells us, " That in prognoſticating Hemorrhages, intenſely " red Eyes are of great Importance." The Author of *Coac. Præſag. Text.* 142. informs us, " That " Redneſs of the Face denotes an Eruption of " Blood." And *Galen*, in *Lib.* 3. *de Criſibus*, *Cap. ult.* and eſpecially in *Lib. ad Poſthumum*, *Cap.* 13. affirms, " That a Redneſs of the Cheeks and No- " ſtrils denotes a ſpeedy, ſubſequent Hemorrhage." And this Obſervation is ſufficiently juſt, ſince the Veins of the Skin are at that Time filled, and coloured with the Blood. Hence alſo an Heavineſs and Senſe of Weight in the Noſtrils are mentioned in *Coac. Præſag. Text.* 131. But this Redneſs of the Face is carefully to be diſtinguiſhed from that which ariſes from an Inflammation of the Brain, concerning which, the Author of *Coac. Præſag.* in *Text.* 7. tells us, " That an intenſely red " Colour of the Face, accompanied with Sweat,

is

" is a malignant Sign." And in *Pror. Lib.* 1. *T.* 49. we are told, " that a red Colour of the Face, accom-" panied with great Sadneſs, is a bad Sign." But this dangerous Redneſs of the Face is beſt known from the Signs of an inflamed Brain, or from that Redneſs which colours the Cheeks, in Conſequence of ſome Diſorder of the Lungs, as, in the preceding Book, we obſerved to happen in peripneumonic and aſthmatic Patients. But the Redneſs, which prognoſticates Hemorrhages, appears in the Height or State of the Diſeaſe; and if the Diſorder is not mortal, in Conjunction with one or many of the abovementioned Signs. Theſe then are the various Signs by which we are enabled to prognoſticate an Eruption of Blood from the Noſtrils; but as they do not always appear at once, two or three of the moſt conſiderable will be ſufficient to prognoſticate an Hemorrhage. But the moſt conſiderable, according to *Hippocrates* and *Galen*, is a Pain of the Head, which *Galen* in 1. *ad Glauc.* frequently aſſerts to be an inſeparable Sign of a future Hemorrhage. The other conſiderable Signs are a Pain or Heavineſs of the Sinciput, Neck, or Temples, a Dimneſs or Flaſhing of the Sight, a Tenſion of the Hypochondria without Pain, or a difficult Reſpiration, which ſoon after ceaſes, and a Redneſs of the Face, a little before the Hemorrhage, happens in burning Fevers, a violent Cauſus, an exceſſive Inflammation of the internal Viſcera in young Perſons, and eſpecially ſuch as are previouſly accuſtomed to ſuch Eruptions. Theſe Obſervations are ſufficient concerning that Criſis, which happens by an Hemorrhage from the Noſe; only let us add from *Galen* in *Lib.* 1. *ad Glauc.* where he treats accurately of the Signs of an Hemorrhage, that the Pulſe is ſuddenly raiſed, as it were, into a Kind of Tumor, which does not ſpeedily ſubſide; it alſo ſometimes becomes ſmall and low, and at

other

other Times high and vehement: Upon ſuch Occaſions we are carefully to inſpect the Face of the Patient, for if any of its Parts palpitate, and there is at the ſame Time a Pulſation of the Temples; or if the Cheeks, Noſe and Eyes become red, a Criſis is to be expected; but if the Patients ſhed Tears involuntarily, and have a Flaſhing of the Eyes, or if they begin to ſcratch their Noſtrils, we may know that the Hemorrhage is at Hand, for the Hemorrhage begins after two or three Scratches. Nor ought we to be diſturbed at theſe Symptoms, though the Patient ſhould be delirious and diſtracted, ſince they are only Signs that the Humours are conveyed to the ſuperior Parts; which alſo accounts for the Difficulty of Breathing, the Tenſion of the Hypochondria, and the Pain of the Neck and Head.

CHAP. XIV.

Of the Criſes which are brought about by Diſcharges of Blood from the Uterus and hemorrhoidal Veins.

WOMEN have frequently Criſes brought about by Evacuations of Blood from the Uterus, reſembling the menſtrual Diſcharge, and ſuch Evacutions may be prognoſticated by many Signs; for when we ſuſpect an approaching Criſis, we are carefully to enquire, whether the Menſes flow in the uſual Manner or not: The Time at which they uſed to flow is alſo to be carefully obſerved, and the Age, Temperament, and preceding Regimen of the Patient accurately conſidered: Then we are to enquire, whether the Signs of an Hemorrhage are preſent, or thoſe of Vomitings, Sweats, Purgings, or a copious Diſcharge of Urine; and when none of theſe Signs appear, we are, in violent Diſorders, to ſuſpect a Criſis by the Men-

ſes. But according to *Galen*, in *Lib.* 3. *de Criſibus*, *Cap. ult.* when the peculiar Signs of the Menſes, which are a conſiderable Heavineſs, Pain, and Tenſion of the Loins, are preſent, we are, in Order to avoid Miſtakes, carefully to enquire of the Patient with what Symptoms ſhe was uſually afflicted when her Menſes flowed, and theſe Symptoms are carefully to be regarded in predicting the Criſis; ſince in ſome Women, when the Menſes are about to flow, the Loins are afflicted with Pain, in others the Abdomen, in others the Uterus and Legs, which Parts, when carefully obſerved, are of great Uſe in prognoſticating the menſtrual Evacuation. But above all, when the Criſis is about to happen, we are carefully to enquire whether the Signs of any other Evacuation are preſent, and if no ſuch Signs appear, or if the Patients labouring under an acute Fever have a Pain and Tenſion of the Loins, without any manifeſt Cauſe, we may, according to *Galen* in *Lib.* 3. *de Criſibus*, prognoſticate a ſpeedy Diſcharge of the Menſes. The Author of *Prorrhet. Lib.* 1. *Text.* 142. tells us, " that Fevers, accompanied with Ri-
" gors and Laſſitudes, are removed by the regular
" Flowing of the Menſes." Many Women even without a Fever perceive a certain Wearineſs, accompanied with a Pain and Tenſion of the Loins, by which they prognoſticate the Approach of the Menſes. A Cardialgia or Pain of the Mouth of the Stomach is alſo reckoned a Sign of the approaching Menſes. Thus *Galen* in 3. *Prorrhet.* tells us, " that when a large Quantity of Blood is ac-
" cumulated in the Veins, a thin Serum collected
" in the Stomach produces Cardialgias aſcending
" into its Mouth, which is of almoſt all other
" Parts of the human Body the moſt ſenſible.
" But a great Portion of the redundant Humour
" being conveyed to the inferior Parts to which it

uſed

" uſed to be before conveyed, excites Pains of the " Loins." To all theſe Signs the Author of *Coac. Præſag.* in *Text.* 167. adds, " a Senſe of Heat a- " bout the Spine," for this is a Sign of the Recurring of the Blood, through the large Vein, running through the Spine, and which at the Loins is exceſſively hot, on Account of the fervid Commotion of the Blood. Theſe are the Signs of a ſubſequent Evacuation of Blood from the Uterus, which will ſtill render the Prognoſtic more certain and infallible, if the Menſes have been ſuppreſſed, and if theſe Signs appear at the Time they uſually flowed, when the Patient was in a State of Health. All theſe Signs alſo indicate an hemorrhoidal Diſcharge in melancholic Men, who have uſually had the Hemorrhoids, but in whom they are ſuppreſſed; for firſt they have a long continued Pain of their Loins, without any manifeſt Cauſe: The Mouth of their Stomach is alſo afflicted with Pain. Thus in *Prorrhet. Lib.* 1. *Text.* 130. we are told, " that Cardialgias ſucceeding Pains of the Loins " are Signs of an approaching hemorrhoidal Diſ- " charge, but I am of Opinion that the Pains of the " Loins are Signs of a preceding hemorrhoidal Eva- " cuation." But *Galen* affirms, that the Symptoms of this Diſorder are very conſpicuous, for a Redundance of Blood accumulated in the Veins, and a thin Serum collected in the Stomach, and ariſing into its Mouth produces Cardialgias, and a large Quantity of Blood tending downwards, excites Pains of the Loins.

Hence the Pain and Tenſion of the Loins, a Senſe of Wearineſs, the Pain of the Mouth of the Stomach, and the Heat about the Spine of the Back, in Men of melancholic and cachectic Habits, prognoſticate an hemorrhoidal Diſcharge, eſpecially if they have before been ſubject to it, and it has been lately checked and obſtructed. In *Lib.* 3.

Coac. Præſag. Text. 306. we are told, " that Pains " in the Loins denote Eruptions of Blood," which are principally incident without any manifeſt Cauſe to melancholic Men, and ſuch as are accuſtomed to thoſe Excretions. Having thus conſidered the Criſes which happen by Eruptions of Blood, we now proceed to treat of thoſe prognoſticated by Vomitings.

CHAP. XV.

Of the Knowledge of ſuch Criſes as happen by Vomitings.

AS Criſes are frequently brought about, and Diſeaſes terminated by Vomitings, it is therefore neceſſary we ſhould know by what Signs ſuch Criſes may be prognoſticated. Theſe Signs are by *Galen* in *Lib.* 3. *de Criſibus*, ſaid to be a pungent, acute Pain of the Head, a Dimneſs of the Eyes, a gnawing Pain about the Mouth of the Stomach, Loathing, Nauſea or Retching, eſpecially when the Matter of the Vomiting is to be bilious, a copious Diſcharge of thin Spit from the Mouth, an Agitation or Trembling of the inferior Lip, an Inequality and Hardneſs of the Pulſe, to which ſome add Jactation or Uneaſineſs, a bitter Taſte perceived upon the Tongue, Rigors and a Difficulty of Breathing. A future Vomiting then may be eaſily known from the Motion, and Conveyance of the Humours to the Stomach, becauſe Nature tranſmitting the noxious Humours through the Veins to the Stomach, excites and irritates its expulſive Faculty, by which Means Vomiting is produced. When therefore the Humour conveyed through the Veins to the Stomach is hot and agitated, it renders the Patients ſick and reſtleſs, which Sign is however to be obſerved in the Generality of Criſes. But firſt of all, as *Galen* obſerved, the Head is af-

flicted

flicted with acute Pains, on Account of the Exhalations rising from the Stomach, and affecting the Membranes of the Brain; whereas in future Hemorrhages the Pains are far from being so tensive and acute, because they do not proceed from a bilious and acrid Humour. On Account of the Diffusion of the same Exhalations through the Humours to the Eyes, Persons about to vomit are seized with a Dimness of Sight and a Vertigo, or, as *Hippocrates* in 1. *Prorrhet. Text.* 46. expresses, "they observe a Darkness before their Eyes." When therefore a bilious Humour is conveyed from the internal to the external Veins, the Patiens are seized with a Rigor or Horror, and when this Humour acts upon the Mouth of the Stomach, which the Ancients called the Heart, it creates a Loathing by vellicating so sensible a Part: And as the Humours are thus conveyed to the superior Parts, the Parts below the Hypochondria become cold, both because the hot Humours are conveyed upwards, and because the native Heat retires to the internal Parts; and when this Humour irritates and vellicates the Mouth of the Stomach, Loathings, Restlessness, and Cardialgias are produced; and when the Patient is about to vomit, the Mouth seems as it were to be full of a thin Spit, because, according to *Galen*, the whole internal Part of the Mouth, the Fauces and the Stomach are lined with one continued Coat. Hence it is that the inferior Lip sometimes trembles, when the Mouth of the Stomach is stimulated to vomit; and this Trembling of the Lip evinces, that the now-mentioned Coat is vellicated. Nor is it surprising that an acrid hot Humour should produce this Effect, for *Hippocr.* in *Sect.* 4. *Aph.* 17. tells us, "that when a Patient "is not feverish, a Cardialgia, a Vertigo accom-"panied with Dimness of Sight, and a bitter "Taste in the Mouth indicate the Necessity of

" Emetics." By this Aphorifm *Hippocrates* feems to infinuate, that in feverifh Patients thefe Signs precede a Vomiting, and that unlefs this Vomiting happens, fluggifh Nature is to be ftimulated and excited by Emetics. Hence when thefe Signs appear in a burning Fever, which is not of the mortal Kind, we may prognofticate a Vomiting: Thus *Hippocrates* in *Lib.* 3. *Prognoft. Text.* 30. tells us, " that if in a Fever, which is not of the mortal " Kind, the Patient is afflicted with an Head-Ach, " a Dimnefs of Sight, and a Pain of the Stomach, " a bilious Vomiting will foon happen, and ftill " the fooner if there is a Rigor and Coldnefs of " the Ilia and Parts below it: But if in fuch a Si- " tuation the Patient fhould eat or drink he would " vomit immediately." And a little after, the fame Author tells us, " that thefe Symptoms are prin- " cipally incident to Men and Women in Terti- " ans, and to young Perfons in Fevers of the con- " tinual and legitimate tertian Kind." In *Lib.* 1. *Epid. Sect.* 2. we are told, " that they who have an " Heavinefs of the whole Head, a Pain of the " Stomach, and Loathing of Food, are foon after " feized with a bilious and pituitous Vomiting." *Galen* alfo in *Lib.* 1. *ad Glauc.* tells us, that a Pain of the Head, as alfo a Cardialgia, are infeparable Signs of an approaching Vomiting; and in *Lib.* 3. *de Crifibus*, he tells us, that an Agitation of the inferior Lip, and a Driveling of the Saliva from the Mouth, prognofticate a fpeedy Vomiting. Thus in *Coac. Præfag. Text.* 556. we are told, " that a " Kind of Salivation happens to Perfons who are " about to vomit;" and in *Lib.* 1. *Prorrhet. Text.* 3. it is faid, " that if phrenetic Patients have a " Spitting and are cold, a Vomiting of black " Matter fucceeds." But the Author of *Prorrhet.* in *Lib.* 1. *Text.* 6. affirms, that a frequent Spitting in which little is evacuated, prognofticates a phre-

nitic

nitic Delirium, and is a bad Sign in phrenitic Patients; whereas a copious Spitting and an Abundance of thin Saliva in the Mouth denote a ſubſequent Vomiting. This Spitting was obſerved in that Patient mentioned in *Lib.* 1. *Epid. Ægr.* 12. "who "becoming warm, ſup'd and drank copiouſly." According to *Hippocr.* the Wife of *Epicrates*, mentioned in *Epid. Lib.* 1. *Ægr.* 5. "on the fifteenth "Day had frequent Vomitings of a bilious yellow "Matter, ſweated and was freed from her Fever." And *ibid. Ægr.* 13. we are told, "that on the "fourteenth Day the Woman who lay on the "Shore frequently vomited a bilious yellow Mat-"ter, ſweated and was freed from her Vomiting." In both theſe Patients labouring under acute Fevers, before the Vomiting happened, there were Heavineſs and Pains of the Head, and ſome other Signs which denote an approaching Vomiting.

CHAP. XVI.

Of the Signs of thoſe Criſes which are about to happen by Sweat and copious Evacuations of Urine.

ACUTE Diſorders are frequently terminated by Sweats, which, according to *Galen*, are peculiar to all Fevers, eſpecially thoſe of the hot and burning Kind. Sweats alſo afford Relief in all Inflammations of the internal Viſcera, and parotid Glands, Lethargies, and all other Diſorders of the Head; as alſo in Quotidians, Quartans, and Semiquartans. But theſe intermittent Fevers are alleviated not only by Sweat, but alſo by bilious and pituitous Excretions, either by Vomit or Stool, or by Hemorrhages, the Quartans by a Vomiting of black and heterogeneous Matter, and the Quotidians by pituitous Vomitings and Stools. But of theſe we do not treat, ſince it is our Deſign to conſider a-

cute Diſeaſes, which generally ſoon terminate in Death or Recovery. Of this Kind are all acute, continual Fevers, eſpecially thoſe of the burning Species to which Sweats ſeem peculiar, as alſo internal Phlegmons, Inflammations, and all hot Diſorders of the Head, in which if the critical Signs and thoſe of Concoction precede, a future Criſis is juſtly prognoſticated. *Galen* in *Lib.* 3. *de Criſibus, Cap. ult.* tells us, that when theſe Signs appear, a Criſis happens by Sweat; for if the Evacuations by Stool aud Urine are ſuppreſſed, a profuſe Sweat, if the Fever is of the burning Kind, will neceſſarily appear after a Rigor. Thus *Hippocrates* in *Lib.* 6. *Epid. Text.* 9. *Com.* 1. tells us, " that before a " Rigor, a Suppreſſion of the Urine happens." Hence a total Suppreſſion or ſcanty Evacuation by Stool or Urine, without the previous Signs of an Hemorrhage, Vomiting, Purging, hemorrhoidal or menſtrual Diſcharge are certain Signs of an approaching Sweat, eſpecially if the Patient becomes delirious, as the Acceſſion increaſes. At this Time the following Signs will alſo neceſſarily appear, the external Parts, and eſpecially the Face, will become reder and hotter than uſual, an hot Steam will exhale from the Skin, and the Pulſe will become undulating and remarkably ſoft. Thus *Galen* in *Lib. Synops. de Pulſibus, Cap.* 22. tells us, " that the un- " dulating Pulſe generally prognoſticates Sweat, " eſpecially when it is ſoft, though not irregular; " but if it is high, undulating, large, though not " hard, we have the ſureſt Sign of approaching " critical Sweats." Theſe Signs are alſo mentioned by *Galen* in *Lib. de Præſagio, Experientia confirmato*, where he adds, that the whole Skin is rendered pruriginous, ſoft and red: The Skin is obſerved to be very ſoft before approaching Sweats. Thus *Hippocrates* in *Sect.* 5. *Aph.* 71. tells us, " that " they whoſe Skin is tenſe, hard and dry die

" without

" without Sweat, whereas thoſe in whom it is lax " and rare die with Sweat." Some conſtitute only two principal Signs of Sweat, namely a Suppreſſion of Urine, by which Means a ſerous Humidity, ſince the Matter of Sweat and Urine is the ſame, is diffuſed through the whole Body, and by its vellicating, acrid Quality, excites a Rigor, which is the ſecond Sign of Sweat. Thus *Hippocrates* in *Sect.* 4. *Aph.* 58. tells us, that a Rigor " happening in a " burning Fever terminates the Diſorder." *Galen* alſo in 6. *Epid.* ſays, " if the Patient is coſtive, " and a ſpeedy Criſis prognoſticated, a Rigor and " ſubſequent Sweat will neceſſarily happen." But Sweat does not conſtantly ſucceed a Rigor and Suppreſſion of Urine, which are ſometimes followed by Hemorrhages, Vomitings and Fluxes of the Belly. Hence it will be a certain Preſage of Sweat, when the Patient is at the ſame Time coſtive, and a Rigor happens in a burning Fever or any other Diſorder terminated by Sweat, and this Sign will be the more infallible, if during the Increaſe of the Acceſſion, the Patient becomes delirious. The external Parts alſo become warmer, reder, ſofter and moiſter, with a hot unuſual Steam. The Pulſe alſo appears large, high, ſoft and fluctuating, neither will there be any Signs of an Hemorrhage, Vomiting, Diſcharge of Stool or Urine, or of the menſtrual and hemorrhoidal Evacuations. *Cleonactides*, mentioned in *Epid. Lib.* 1. *Ægr.* 6. *Melidia ibid. Ægr.* 14. and others mentioned by *Hippocrates*, had their Diſorders terminated by Sweat: But we now come to conſider the Signs of a Diſcharge of Urine, by which we ſee many acute Diſorders terminated. Thus *Hippocr.* in *Epid. Lib.* 3. *Ægr.* 5. tells us, " that on the twen- " tieth Day *Chærion* had a perfect Criſis by Means " of a copious Diſcharge of bilious Urine." And *Nicodemus* mentioned *ibid. Ægr.* 10. had his Diſor-

der terminated by a copious Discharge of white Urine, in which was a large Quantity of thick Sediment. *Ibid. Ægr.* 1. *Hippocrates*, when speaking of *Pythion*, tells us, " that on the fortieth Day he " had a copious Discharge of Urine, and was seiz- " ed with a Suppuration about the Anus;" it is probable that on the fortieth Day he was cured by a copious Discharge of Urine. In *Lib.* 1. *Epidem. Sect.* 2. *Hippocrates* tells us, " that during a certain " Period those were only preserved who had copi- " ous Hemorrhages from the Nose, and plentiful " Discharges of Urine, with a large Quantity of " laudable Sediment." But lest it should be thought difficult to find out certain Signs for prognosticating Crises by the Discharge of Urine, *Galen* informs us, that critical Discharges of Urine are about to happen when no Signs of Hemorrhages, Sweat, Vomitings, Purgings, or the hemorrhoidal and menstrual Discharges appear, especially when the Stools which were before copious, either become scanty or are totally suppressed; because, according to *Galen*, when the Humours contained in the Abdomen are exhausted, and dispersed through the Veins, the Stools are necessarily diminished. Thus *Hippocrates* in *Sect.* 4. *Aph.* 83. tells us, " that " a copious Discharge of Urine in the Night Time, " prognosticates a scanty Discharge of Fæces the " subsequent Day." But some more certain Signs are necessary, which from Experience I have found to be these following. There are no Signs of another Excretion, and especially there is no Pain of the Head, Hypochondria, Stomach, or Intestines. The Disease does not seem violent, nor are the Patients excessively restless, tossing and uneasy: The Hypogastrium generally perceives a Sense of Weight, and is sometimes afflicted with Pain, and the Patient imagines that his Bladder is as it were inflated. The Urine generally begins to be dis-

charged

charged gradually, rarely ſuddenly, ſo that it is eaſily obſerved to be more copious than uſual, and is immediately augmented. The Patient alſo perceives a Kind of Heat in his Urine, by which he is ſtimulated to a frequent Diſcharge of it; for it muſt neceſſarily happen that the Parts through which this Humour paſſes to the Bladder, as alſo the Kidneys, Bladder and urinary Paſſages muſt perceive ſome uneaſy Senſation more than the other Parts. Theſe are our Obſervations on Criſes produced both by Sweat and Urine.

CHAP. XVII.

Of the Signs of Criſes brought about by Fluxes of the Belly.

THAT Criſes often happen, and that many acute Diſorders are terminated by Means of Fluxes of the Belly is ſufficiently certain; ſo that we ſhall now carefully conſider the Signs of a Criſis produced by this Evacuation. It is however ſurpriſing that neither *Galen* nor *Hippocrates* have enumerated the peculiar Signs of this Excretion; for *Galen* in *Lib.* 3. *de Criſibus, Cap. ult.* ſpeaks in the following Manner. " If a Criſis is to happen by Stool, there " is no manifeſt and peculiar Sign of ſuch a " Change, only we may infer ſo much from the " Preſence of the Signs of a Criſis, and the Want " of thoſe of Vomitings, Hemorrhages and Sweat." Hence it is obvious that future Diſcharges of the Fæces are not known by peculiar Signs, but from the Signs of a Criſis and the Abſence of the Signs of all other Excretions. But there are ſome Signs by which this Evacuation may be prognoſticated: Such as thoſe mentioned by *Hippocrates* in *Sect.* 4. *Aph.* 20. " If Perſons, ſays he, not la- " bouring under a Fever, are ſeized with Gripes, a

" Numbneſs

"Numbneſs of the Knees, and a Pain of the "Loins, a Purging will ſucceed." And afterwards in *Aph.* 73. he ſays, "in thoſe who have a "Suſpenſion and Rumbling of the Præcordia, with "a ſupervening Pain of the Loins, a Purging "happens, unleſs there is either an Eruption of "the Flatulences, or a copious Diſcharge of U-"rine." And in *Coac. Præſag. Text.* 142. we are told, "that they who have Eructations, Flatulences, "and Rumblings of the Inteſtines, are ſeized with a "Protuberance and Diſorder of the Abdomen." Hence we may infer, that in order to prognoſticate a Looſeneſs, we muſt carefully advert to the griping and gnawing of the Inteſtines, the Numbneſs of the Knees, the Pain of the Loins, the Suſpenſion and Noiſe of the Præcordia; the Eructations, Flatulences and the Rumbling, Protuberance and Diſorder of the Abdomen; for theſe together with the critical Sign prognoſticate a Solubility of Body. If bilious or pituitous Humours are to be diſcharged by Stool, it ſeems impoſſible but Gripes muſt be excited; for according to *Galen* in *Lib.* 5. *de Uſu Partium*, no one can diſcharge a copious, bilious Matter by Stool, without having a previous Vellication of the Inteſtines in the ſame Manner as we have ſhewn that a Cardialgia is excited by bilious Vomitings. Hence if bilious, ſaline, or melancholic Sordes are to be evacuated, the Inteſtines muſt neceſſarily perceive Pain and Vellication: But if the Humour to be diſcharged is pituitous and cold, Flatulences, Eructations, a Tenſion and Noiſe of the Præcordia, and a Perturbation of the Abdomen will happen. And unleſs theſe ariſe from ſome peculiar Fault of the Stomach and Inteſtines, ſuch as a Defect of Concoction and Diſtribution, a Corruption of the Aliments, or a Generation of peccant Humours in the Stomach and Inteſtines, they are, in acute Diſorders, critical Signs of a Solubility of Body.

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Sometimes there is a Pain of the Loins, and a Numbneſs of the Knees, when the Humours deſcend to the inferior Parts, but theſe are not the peculiar Signs of an approaching Solubillty of Body. But when the Tenſion and Pain are very violent, and the Patients perceive an intenſe Heat about the Spine, in Women we prognoſticate the menſtrual, and in Men the hemorrhoidal Diſcharge, though ſometimes theſe Symptoms are ſucceeded by a Diſcharge of the Fæces, eſpecially when the Matter lodged in the large Inteſtines, and the Meſocolon, which is continuous to them, arrives near any of the Vertebræ of the Loins. Thus the Author of *Coac. Præſag. Text.* 19. tells us, "that they who are ſeized with an Horror, Anxiety, Laſſitude, and Pain of the Loins, fall into a Looſeneſs." But this Pain of the Loins, which prognoſticates a Flux, is to be diſtinguiſhed from that which preſages the menſtrual or hemorroidal Diſcharges. Beſides theſe there are alſo other Signs of a Solubility of Body, ſuch as Gripes and Rumblings of the Inteſtines, Flatulences, Eructations, Tenſion and Noiſe of the Præcordia, which, when critical Signs ſucceed them in an acute Diſorder, infallibly prognoſticate a Solubility of Body. Having thus conſidered the ſimple Species of Criſes, we next come to treat of ſuch as are complicated.

CHAP. XVIII.

Of compound Criſes, in which various Species of Criſes concur to terminate Diſorders.

IT often happens that acute Diſorders are terminated not by one but by two or more Criſes, and theſe are called compound Criſes; for Patients often have a Criſis brought about by an Hemorrhage

rhage and a copious Sweat. Thus *Hippocrates* in *Lib.* 4. *de Vict. Rat.* in *Acut.* tells us, " that an " Hemorrhage from the Nose terminates the Dis- " ease, as also critical Sweats with white thick U- " rine, which has a smooth Sediment." The same Author in *Epidem. Lib.* 1. *Ægr.* 7. tells us, that *Meton* had his Crisis produced by an Hemorrhage and Sweat. *Galen* also in *Lib.* 2. *de Mot. Musculor.* informs us, that he saw a certain Man afflicted with an acute Fever and Delirium for thirteen Days, entirely cured by an Hemorrhage from the Nose and a Sweat. The Woman also mentioned in *Epidem. Lib.* 1. *Ægr.* 13. who was three Months gone with Child, and lived on the Shore, had her Crisis by Vomiting and Sweat. The Man mentioned in *Epidem.* 3. *Ægr.* 3. and who is said to have lived in the Garden of *Dealces*, was cured by a Discharge of pituitous Stools and copious Sweat. *Anaxion* mentioned in *Lib.* 3. *Ægr.* 8. had his Crisis by copious Expectoration and Sweat. *Nicodemus* mentioned *ibid. Ægr.* 10. had his Disorder terminated by a large Discharge of Urine with a copious Sediment, and a profuse Sweat. *Ibid. Ægr.* 11. the morose Woman living in *Thasus*, was cured by Sweat and an Eruption of her Menses. Hence we ought to be at all possible Pains to know not only the simple, but also the compound Species of Crises, which may be done by carefully adverting to the Signs of simple Crises before laid down; for when two or more Crises are to happen, the Signs of two or more will precede them.

But that these Things may be the more clear, we shall give some Examples, especially of those Crises or Excretions which happen by Sweat and some other Excretion; for generally there are very few Fevers either of the acute, bilious or sanguineous Kind, or internal Inflammations and Phlegmons, which are terminated without Sweat, though often

often not by that Evacution alone, but in Conjunction with an Hemorrhage, the Menſes in Women, the hemorrhoidal Diſcharge, Vomiting, Spitting, Purging, or an Evacuation of Urine. In thoſe who are to have a Criſis by an Hemorrhage and Sweat, the principal Signs of both Evacuations will be preſent, ſuch as Pains of the Head accompanied either with Heavineſs, Pulſation or Heat, an involuntary Effuſion of Tears, Deafneſs, a Ringing of the Ears, a Redneſs of the Eyes, Cheeks and Noſtrils, a Tenſion of the Hypochondria without Pain; ſometimes a ſudden Difficulty of Breathing, which ſoon after ceaſes. An high and large Pulſe ariſing from a Suppreſſion or Diminution of the Stools and Urine, violent Rigors, an Abſence of the Signs of other Excretions, of the Menſes for Inſtance, hemorrhoidal Diſcharge, Vomiting and Purging, a Delirium as the Acceſſion encreaſes, a preternatural Heat, Redneſs, Softneſs, and Moiſtneſs of the external Parts, eſpecially of the Face, and a ſoft and undulating Pulſe. If with Sweat, the Menſes are to appear in Women, the Signs of Hemorrhages, Vomitings, and other Excretions will be abſent, and thoſe peculiar to the Menſes, preſent; ſuch as a conſiderable Senſe of Weight in the Loins, Pain and Tenſion of the whole Body, eſpecially a Laſſitude of the Loins. Hence the Author of *Coac. Præſag. Text.* 36. calls theſe laſſitudinary Fevers, critical. There will be alſo a Cardialgia, and a Tenſion and exceſſive Heat about the Spine. If theſe Signs appear in Men with Sweat, they prognoſticate the Hemorrhoids: And if a Vomiting is to happen with Sweat, the Signs of the former will alſo appear in Conjunction with thoſe of the latter, ſuch as an acute and pungent Pain of the Head, a Dimneſs and as it were Darkneſs before the Eyes, a Loathing and Nauſea, Retching, Anxiety and Reſtleſſneſs,

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a Cardialgia, a Difficulty of Breathing, an Inequality and Hardneſs of the Pulſe, an Agitation of the inferior Lip, and when the Patient is about to vomit a large Quantity of thin Saliva drivelling from the Mouth. If there is to be a Diſcharge of Urine with Sweat, the Signs of an approaching Diſcharge of Urine will be preſent, which are the Abſence of the Signs of other Excretions, a ſcanty Diſcharge of the Fæces, which were before copiouſly evacuated; no Pain except in the Hypogaſtrium, a Senſe of Weight, and a Perception of Inflation in the Bladder, moderate Toſſings and Reſtleſſneſs. The Diſcharge of Urine alſo begins gradually, and is augmented ſo as ſometimes to induce a Heat of Urine, Itching, and frequent Inclination to make Water. If with Sweat a Purging is to happen, then the Signs of an approaching Solubility of Body will be preſent; ſuch as a Tenſion and Noiſe of the Præcordia, a Gnawing of the Inteſtines, Flatulences, Eructations, a Rumbling of the Inteſtines, a Pain of the Loins, ſometimes a Numbneſs of the Knees, a Perturbation of the Abdomen, and a vibrating, hard Pulſe. If together with Sweat, a copious Expectoration is to happen, the Signs peculiar to Diſorders of the Lungs and Breaſt will appear; but Expectoration ought principally to be obſerved in a Pleuriſy and Peripneumony, as *Hippocrates* in *Epidem. Lib.* 3. *Ægr.* 8. obſerved in *Anaxio*, labouring under a Pleuriſy. The Signs of a copious, approaching Expectoration are a Cough, a difficult Reſpiration, and a Spit beginning to be diſcharged with the Cough; but when the Spit is better concocted, it is more eaſily expectorated. But we now come to conſider the Time at which Criſes appear, or are to be obſerved.

CHAP.

CHAP. XIX.

Concerning the Time in which Crises happen.

HAVING considered how Physicians may know whether Diseases will be terminated with or without a Crisis, and if by a Crisis, whether by Abscesses, or Excretions of Humours, what Crises are good and salutary, and what bad and mortal; having also from their peculiar Signs shewn what Species of Crises are to be expected; it now remains that we carefully enquire into the particular Times at which Crises happen, and which are of great Importance in acquiring Fame to the Physician by making just Prognostics. Though a Knowledge of the Times of Crises may seem perplexed and intricate, yet, if we carefully consider the above-mentioned Signs and their Efficacy, we shall find no great Difficulty in predicting the Times of Crises, which are to be ascertained from the critical Signs and the Times in which they appear, and are increased; for the critical Signs are not removed till the Crisis begins, as also from the Nature, Vehemence, Motion and Times of the Disease, and from Concoction and Crudity; for the critical Signs which precede a Crisis, according to *Hippocrates* in *Sect.* 2. *Aph.* 13. render the Patient restless and uneasy the Night before. *Galen* also in *Lib. de Crisibus*, speaks in the following Manner. "Crises are preceded by violent Perturbations, "Restlessness, Watchings, Deliriums, turbulent "Sleep, difficult Breathing, Vertigos and Dimness "of Sight, a Loss of Sensation in some Measure, "Pains of the Head, Neck, Stomach, and many "other Parts; in some a Ringing of the Ears, a "Flashing of the Eyes, and an involuntary Effu-"sion of Tears; a Retention of Urine, an Agi-

tation

" tation of the under Lip, a Tremor of ſome o-
" ther Part; Forgetfulneſs, Ignorance of preſent
" Objects, a violent Rigor, the Acceſſion happen-
" ing much ſooner than uſual; in many an into-
" lerable Heat, the Patients cry and jump like
" mad Perſons, nor can they remain in the ſame
" Poſture; then ſuddenly a profuſe Sweat breaks
" out, or a Vomiting appears, or a Purging, or a
" copious Hemorrhage, or a Diſcharge of Urine,
" or all theſe Excretions appear at once;" for we have already demonſtrated that theſe with the Signs of Concoction prognoſticate a Criſis. But the Beginning of theſe Signs is carefully to be adverted to, in order to know exactly on which Day the Criſis will happen; for the Criſis will not be beyond a Quaternary diſtant from the Day, in which theſe Signs appear. Thus, for Inſtance, when they begin on the fourth Day, and the Urine is obſerved to be concocted and the Diſeaſe violent and quick, it will not be beyond the ſeventh Day before the Criſis happens: But when the manifeſt Signs of Concoction begin, and the Diſeaſe is not very violent and quick, the Criſis will not happen ſooner than the ſeventh, that is in the ſecond Quaternary. Thus by *Hippocr.* in *Lib.* 3. *Prognoſt. Text.* 33. we are told, " that they who begin to be afflicted with
" Pain on the firſt Day, are worſe on the fourth
" than on the fifth Day, and have a Criſis on the
" ſeventh. Many of thoſe who begin to be af-
" flicted with Pain on the third Day, are generally
" worſe on the fifth; but have a Criſis on the
" ninth or eleventh Day: Whereas thoſe who be-
" gin to be afflicted on the fifth Day, have, gene-
" rally ſpeaking, their Criſis on the fourteenth." Hence the Time of the Criſis will generally be ſeven Days from that in which the critical Signs begin to appear. But when any manifeſt Sign appears, from which we know that the Diſeaſe is in its

its Augmentation, the Crisis will generally happen in the Second Quaternary, since the Concoction is no longer to be performed; and that is the peculiar Time of the Height of the Disease for salutary Crises, according to *Galen*, who speaks in the following Manner: "When on the first Day there "appears some manifest Sign of Concoction, whilst "the other Signs are not dangerous, then we may "certainly know that a Crisis must necessarily hap-"pen in the first Quaternary; but if with these "critical Signs a perfect Concoction appears, the "Crisis will necessarily happen on the first critical "Day." From the Critical Signs therefore we not only prognosticate future Crises, but also the particular Times at which they are to happen. From the Nature of Diseases, whether acute or chronical, we may also prognosticate the Times of their Crises. As for the Times and Ages of Diseases, some are acute, others chronical, and others of a middle Nature, between these two. The acute, according to *Hippocrates*, in *Sect.* 2. *Aph.* 23. are terminated in fourteen Days, tho' *Galen* seems to make the Period of acute Disorders the twentieth, and to extend that of the middle Kind, which he calls acute by Conversion, to the fourtieth. With Respect to these *Hippocrates*, in 1 *Prognost. Text.* 21. tells us, "That "an easy Respiration is of great Importance to the "Recovery of all acute Disorders, and such of these "as are accompanied with Fevers are terminated "in forty Days." The Disorders which are terminated after these forty Days are called chronical. But in order more accurately to determine the Times of Crises from the Nature of Diseases, we must carefully distinguish between the most acute, very acute, and only simply acute Diseases. The Period of these last is longer than those of the others, since, according to *Hippocrates*, in *Sect.* 2. *Aph.* 23. and *Galen* in *Lib.* 3. *de Crisibus*, *Cap.* 13. they are only

terminated in fourteen Days. The moſt acute, ſuch as a Quinſey, a Cholera, a Tetanus, and a Synochus are terminated in one Quaternary. Whereas thoſe which are very acute, ſuch as a Pleuriſy, a Phrenitis, a Peripneumony, an Inflammation of the Liver, Diaphragm, Uterus and Stomach, burning Fevers, and many more, are terminated in ſeven Days. Beſides, ſome of the moſt acute Diſorders are terminated in one, others in two, others in three, and others in four Days; but they never laſt beyond theſe Days, and many of them terminate before them, ſuch as an Apoplexy, a peſtilential Ephemera, and the moſt violent and mortal Species of Phrenitis, which often rages epidemically in *Egypt*, where the Inhabitants call it DEMELMUIA, it is one of their moſt acute Diſorders, and in a few Hours cuts off the Patients. The like holds true with Reſpect to the very acute Diſorders generally terminated on the ſeventh Day; ſince many of them are, by their Violence, frequently terminated before that Time, as we are informed by *Galen*. *Hippocrates* in *Epidem.* 3. *Ægr.* 4. tells us, that a certain Man was cut off on the fourth Day by a moſt violent Phrenitis. A Synochus, a Phrenitis, and Peripneumony are alſo, by Reaſon of the Violence of the Inflammation, often terminated on the fourth or fifth Day. The like holds with Reſpect to ſimply acute Fevers, which are ſometimes terminated on the ſeventh, the ninth, or the eleventh Day. But theſe ſpeedy Terminations generally happen in bad Criſes, which are produced by the Violence of the Diſeaſe, the Redundance or peccant Quality of the Humours, ſtimulating Nature to an Excretion before the due Time. By theſe Means we can in Diſeaſes prognoſticate the particular Times of future Criſes. There is alſo a Medium in the Magnitude of Diſeaſes, and the Strength of the Patient, which are of great Importance for predicting the Times of Criſes: For

as

as *Galen* in 1 *Epid.* obſerves, On Account of the Magnitude of the Diſeaſe, and the Vehemence of its Cauſes, the Strength muſt either be ſoon exhauſted, and the Patient die, or it muſt be ſtimulated to a Secretion of the noxious Humours, and produce a laudable Criſis. Both theſe Accidents generally happen within a Quaternary. Thus when we know the Violence of any Diſtemper on the fourth Day, a Criſis or Death will happen before or on the ſeventh Day. Thus *Galen*, in *Lib.* 1. *Epidem.* tells us, "That in acute Diſorders, when violent Symp-
"toms appear on the fourth, as well as on the
"third Day, we may ſoon expect a Criſis, which
"will probably happen on the even Days, if the
"Diſorder has ſeiz'd the Patient on the even Days;
"but if on the odd Days the Diſeaſe ſeizes the Pa-
"tient, the Criſis will happen on the odd Days;
"and in mortal Diſeaſes Death." *Hippocrates* in *Epidem. Lib.* 1. *Ægr.* 1. when mentioning *Philiſcus*, ſays, that on the fourth Day all his Symptoms were exaſperated, whilſt he laboured under a violent Diſorder, and diſcharged Urine of a black Colour, which was a mortal Sign, ſince it indicated that Nature was about to be extinguiſhed, and that the Strength of the Patient could not ſupport the Shock of the Diſeaſe above a Quaternary. From the quick or ſlow Motion of Diſeaſes, we may alſo accurately prognoſticate the Times of Criſes; for when we expect that a Diſorder will terminate on the ſeventh Day, if beſides its Vehemence we alſo obſerve Celerity, it may be terminated on the fourth or fifth; whereas, when the Progreſs is ſlow, it may not be terminated 'till the ninth or eleventh. But Phyſicians ſtill more accurately know the Times of future Criſes from the Times of Diſeaſes, and from Concoction and Crudity; ſince all laudable Criſes happen either in the Height or Augmentation, not of the Diſeaſe, but of the Efforts of Na-

ture, to concoct the peccant Matter: Whereas fatal Crises happen either in the Beginning, or Augmentation, as we are informed by *Galen*, in *Lib.* 3. *de Crisibus*, *Cap.* 10. Hence in Diseases which are not to prove mortal, a perfect Crisis is only to be expected in the Height, and an Imperfect in the Augmentation. From these the Signs of the Times may be exactly known, as we have elsewhere shewn from *Galen*, in *Lib.* 1. *de Crisibus*. Before a perfect Crisis therefore happens the Augmentation must be finish'd, the Time of which is discover'd by a Knowledge of the Beginning and Augmentation; for if the Beginning of the Disease is long, as also its Augmentation, and if the Strength of the Disease is great, an imperfect Crisis may be expected in the Beginning; but the Beginning is that Time in which the Disease is entirely crude, and without any Sign of Concoction, which, when it appears, constitutes the Augmentation, and lasts 'till the Disease is perfectly concocted, as we are informed by *Galen*, in *Lib.* 1. *de Crisibus*, *Cap.* 8. and *Lib. de totius. Morb. Temp. Cap.* 3. In fatal Crises, we are to observe the Beginning and Augmentation; for in a very violent Disease, where the Patient's Strength is exhausted, the Crisis will not surpass the Beginning, or the first Quaternary: Whereas, in robust Patients, the Crisis will happen in the Augmentation; for Nature will not succumb to the Disease before she has produced some Change in it.

But in order the more accurately to know the Day on which Crises will happen, we are to enquire whether, from the salutary or fatal Signs, a Crisis is to be expected in the first Quaternary; for Nature, in Diseases not mortal, uses that Space of Time to alter the peccant Matter so, as that it may be evacuated; and during the whole of that Time the Disease irritates Nature when strong to the Fight, or extinguishes her when weak. Thus *Hip-*

pocrates, in *Prognoſt. Lib.* 3. *Sect.* 2. tells us, "That "the moſt ſimple Fevers, and thoſe accompany'd "with the ſafeſt Signs, terminate on the fourth "Day or ſooner; but the worſt Fevers, and thoſe "attended with the moſt terrible Symptoms, prove "mortal on the fourth Day or ſooner." But when Nature is exceſſively irritated, ſhe ſuccumbs to a violent Diſeaſe in the Beginning. *Galen* in *Lib.* 1. *de dieb. Decret. Cap.* 12. affirms that ſuch Diſeaſes may be known, from an accurate Obſervation of the Times of their Acceſſion; for if as ſoon as the Diſeaſe invades, that is in the Beginning of the Acceſſion, the Patient is for Inſtance ſo violently refrigerated as hardly to return to his own natural Heat, if this Heat is long abſent, if the Pulſe is ſmall, bad, or imperceptible, if he is liſtleſs and indiſpoſed for Motion, if his Sleep is of the lethargic Kind; if the Beginning of the Acceſſion is moderate, and the Patient afterwards in the Height becomes delirious, jumps violently, becomes paralitic, comatous, reſtleſs, incapable of bearing the Violence of the Fever; if he is afflicted with intenſe Heart, becomes vertiginous, or is ſeiz'd with a Head-ach, or Cardialgia, or if his Diſeaſe is moderate in the Beginning and Height, he will die in the Decline, which is known from the Preſence of a Deliquium, unequal cold Sweats, or ſuch as only appear about the Head, Neck, and Breaſt; or if his Pulſe is obſcure and ſmall, he will infallibly die in the Hour at which the Decline of the Acceſſion happens. From Concoction and Crudity, as alſo from the indicatory Signs, we may prognoſticate the Times of Criſes; for in Diſeaſes which are not mortal a Criſis never happens, unleſs the Signs of Concoction appear on ſome of the critical Days; and theſe Signs generally prognoſticate a Criſis on the ſubſequent critical Days. Indeed in violent Diſeaſes, not of the mortal Kind, Nature generally finiſhes the begun Concoction in one Quaternary,

ternary. If the Signs of Concoction appear on the indicatory Day the Crisis will happen on the next critical Day. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 71, tells us, " That they who have a Crisis " on the seventh Day, on the fourth have a red " Cloud in their Urine, and have their Symptoms " moderate." *Galen* also following this Doctrine, in *Lib.* 3. *de Crisibus*, *Cap.* 4. tells us, " That " when on the first Day any Sign of Concoction " appears, and the other Symptoms are safe, we " certainly know that a Termination of the Dis- " ease will happen in the first Quaternary." Hence we infer, that when a manifest Sign of Concoction appears on any of the critical Days, the Crisis will happen on the subsequent one, because Nature cannot concoct the crude Humours sooner than in a Quaternary. Thus, according to *Galen*, if on the second Day a Patient has the manifest Signs of Concoction, with other safe Signs, his Disorder will be removed, tho' not in the first Quaternary, but in the second, that is on the first critical Day of the second Quaternary, which will be the Sixth or Seventh Day of the Disease. In like Manner, if the Signs of Concoction appear on the Seventh Day, the Crises will rather happen on the Eleventh than on the Fourteenth. This Crisis will always happen, provided the Disease is neither mortal, nor its State and Magnitude too fast accelerated, nor any Error committed in the Management of the Patient; for the Crisis happens in the Height, that is, when the Concoction is perfect. But if, by Reason of the Magnitude of the Disease, the Quickness of its Progress, or any other Cause, Nature is irritated before the Height, the Crisis will happen at an unusual and improper Time. But 'tis nevertheless true, that if either salutary or fatal Signs appear on the critical, and especially on the indicatory Days, the Crisis will happen after a Quaternary, on the

the next critical Day. But the Magnitude of the Diſeaſe, the Quickneſs or Slowneſs of its Progreſs, and Errors committed in the Treatment of the Patient are to be carefully adverted to, ſince, on Account of theſe, the Criſis frequently does not correſpond to the indicating Signs; various Examples of which are given by *Galen*, in *Lib. de Criſibus.*

BOOK

OF THE PRESAGES OF LIFE and DEATH.

BOOK VII.

CHAP. I.

Of particular Excretions of Humours, the Knowledge of which is necessary to prognosticate the Events of Diseases.

IN the preceeding Book we have given an Account of critical Days and Crises, in order to illustrate the Method of presaging, drawn from an Observation of the State of the Natural Faculty. Since therefore among all the four Functions of this Faculty, Concoction and Excretion are of the greatest Importance to prognosticate the Events of Diseases, we have justly premised an Account of Crises, and critical Days, as necessary to the Knowledge of these. So that we now come accurately to consider the particular Excretions and Abscesses; since from these we know not only the Concoction, Crudity, and Malignity of Diseases, but also discover, from the Method of Excretion, when Nature moves, transmits, and evacuates the Humours in a salutatry Manner or not. Hence, for the better Illustration of the prognosticating Art, we shall first treat of the Presages from

from Evacuations of Blood, and then of the Prognoſtics drawn from Sweats, Vomitings, Stools, Diſcharges of Urine, Spits, and Abſceſſes.

CHAP. II.

Of Preſages from a ſalutary Excretion of Blood.

AS it has been often obſerv'd that acute and violent Diſeaſes are terminated by ſudden and copious Eruptions of Blood from the Noſe, the hemorrhoidal Veins, the Anus, and the Uterus, ſo Phyſicians have thought it expedient to imitate Nature by liberal Veneſections. Thus *Hippocrates* in *Lib.* 4. *de Vict. Rat. in acut. Text.* 19. when treating of acute and violent Fevers and Inflammations of the Viſcera ſpeaks in the following Manner: "In "acute Diſorders Blood is to be taken from the Pa- "tient, if he is in the Flower of his Age, of ſufficient "Strength, and the Diſeaſe violent." This Practice they have learnt not only from the Obſervation of Nature, but alſo according to *Pliny*, from the Example of the Sea-Horſe, who when he becomes over corpulent and plethoric, thruſts his Leg upon a ſharp-pointed Rod, which opens a Vein, and affords him Relief. Phyſicians alſo, in a Manner ſomewhat analogous, procure a Solubility of Body by Purgatives, a Vomiting by Emetics, copious Sweats by Sudorifics, and Evacuation of Urine by Diuretics.

Since Nature then terminates various Diſeaſes by copious Excretions of Blood, we ſhall firſt treat of theſe ſpontaneous Evacuations, which are not all of a laudable Kind, nor afford Relief no more than all other Excretions by Stool, Sweat, Vomiting, and Urine. Neither do all Abſceſſes terminate Diſeaſes, but only ſome which are therefore carefully to be diſtinguiſhed from ſuch as are not of a good Kind.

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We ſhall therefore firſt treat of the laudable Evacuations of Blood, and ſuch as perpetually prognoſticate Recovery, and then of ſuch as are fatal, and preſage Death.

Among the various Excretions of Blood, none is of more Importance to the prognoſticating Art, than that which is made from the Noſe in continual, acute, and violent Fevers. *Galen*, in *Lib.* 3. *Prorrhet. Com.* 75. tells us, that hot and thin Humours regurgitating to the Head, produce Deliriums, and Hemorrhages from the Noſe. In *Epidem.* 1. *Com* 1. *Text.* 9. we are informed, that the Blood, by its Heat, rarified and carried up to the Head, diſtends and breaks the Veins ſituated there. And in the ſame Book he ſays, that a Redundance of yellow Bile mixed with the Blood, and with it conveyed to the Head, produces ſuch an Heat and Agitation, as to burſt the Veins of the Noſtrils, and occaſion Hemorrhages.

Hence 'tis obvious that thoſe Hemorrhages proceed only from an hot Blood, or ſuch as is mixed with Bile, and do not happen but in hot Conſtitutions, and in burning acute Diſorders, ſuch as ſynochous Fevers, and thoſe of the continual burning Kind. Thus *Galen*, in *Lib.* 1. *Epidem. Com.* 2. *Text.* 66. affirms, that Eruptions of Blood in burning Fevers, are produced by Heat, and a too copious Afflux of Blood to the Head. *Hippocrates* in 6 *Epidem. Com.* 3. *Text.* 17. tells us, "That Hemorrhages of the "Noſe happen to thoſe who are of a greeniſh dark "Complexion, and ſuch as are of a reddiſh green Co-"lour:" Becauſe the Humours of ſuch Perſons are hot. And afterwards in *Text* 18. he tells us, "That Hemorrhages are incident to Perſons be-"ginning to uſe Venery," on Account of the Redundance and Heat of the Blood at that Time. For the ſame Reaſons Hemorrhages happen to Perſons abounding with hot Blood, and in Diſorders

produced

produced by that Cauſe. Such according to *Galen*, are continual Fevers, and Intermittents of the tertian, but never thoſe of the quartan Kind. To theſe we add, all internal Inflammations of the Præcordia, eſpecially of the Liver, Spleen, Diaphragm, and Stomach. Hemorrhages alſo ſometimes happen in a Pleuriſy, a Phrenitis, but rarely or never in a Lethargy, or Peripneumony. In ſuch Diſorders therefore theſe Hemorrhages or Eruptions of Blood are carefully to be adverted to. But having premis'd theſe Things, we now come to conſider their Prognoſtics. All Hemorrhages therefore (whether from the Noſe, the Uterus in Women, the hemorrhoidal Veins in Men, or from the Stomach; which, according to *Hippocrates* in *Sect.* 7. *Aph.* 37. is ſafe, when not attended with a Fever, but bad when accompanied with that Diſorder) are divided into two Kinds, the *laudable* or *critical*, which are either perfect or imperfect, becauſe they terminate Diſeaſes perfectly or imperfectly, and the *bad* and *ſymptomatical*. Some add the intermediate Hemorrhages, which ſeem to be of a middle Nature, between thoſe of the critical and ſymptomatical Kinds. But we have elſewhere ſhewn that theſe belong to the imperfect critical Kind. Critical Hemorrhages, of the perfect Kind, perpetually prognoſticate a ſpeedy Recovery; whereas ſuch as are imperfect denote a ſlow Return of Health. Thoſe of the beſt and moſt perfect Kind are known by the following Marks: They never appear when the Diſeaſe is crude, but perpetually with the Signs of Concoction, for which Reaſon they are perfect when they happen in the Height of the Diſeaſe, but imperfect in its Augmentation, when only ſome, but not all the Signs of Concoction appear. In all ſalutary Evacuations of Blood, 'tis therefore requiſite that the Signs of Concoction ſhould appear, and if on their Appearance the Blood ſhould be evacuated,

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great Relief is afforded, according to *Galen*, in *Lib.* 13. *de Crisibus*, *Cap.* 7. *Hippocrates* in *Lib.* 4. *de Vict. Rat. in acut. Text.* 10. tells us, " That the " Disease is terminated by an Hemorrhage from the " Nose, as also by the Supervention of critical and " laudable Sweats, with white thick Urine, in which " is a smooth Sediment." If it should be said, that *Meto* mentioned in *Epidem. Lib.* 1. *Ægr.* 7. and the Patient in the Garden of *Dealces* mention'd in *Epidem. Lib.* 3. *Ægr.* 3. had salutary and beneficial Hemorrhages whilst the Excrements were crude, we answer, that in *Meto* the Urine was black, with a black Sediment, and in the other thin, with a thick Sediment, which Signs indicate that their Diseases were not only crude, but considerably malignant. But of these two Patients we have already spoke and shewn that a copious Eruption of Blood is of great Importance in terminating Diseases critically, even in the Beginning, when no Signs of Concoction appear. Thus *Galen*, when speaking of *Meto* says, " That he had his Crisis brought about, " and his Life preserv'd only by an Eruption of " Blood, tho' his Disorder was accompanied with " very bad Signs." Tho' therefore those Excretions of Blood are best which appear when the Disease is concocted, and consequently at its Height; yet Hemorrhages appearing in the Beginning, and with Signs of Crudity are often considerably beneficial. This was observ'd in the morose Woman mention'd in *Epidem. Lib.* 3. *Ægr.* 11. who was cured by a Discharge of the Menses, accompanied with black Urine; tho' *Galen* affirms that this black Urine was no dangerous Sign, because it receiv'd its Colour from the retain'd Menses. It was also observ'd of *Meto* that he had a Crisis by an Eruption of Blood, when his Urine was black. *Hippocrates* also in 1 *Epidem. Com.* 2. *Text.* 56. tells us, " That " when Patients become delirious in Fevers, an

" Eruption

" Eruption of Blood on the ſixth Day proves bene-
" ficial;" but that a Jaundice appearing on that Day is bad, we are taught by *Hippocrates* in *Sect.* 4. *Aph.* 62. This was the Caſe of *Hermocrates*, mention'd in *Lib.* 3. *Epidem. Ægr.* 2. and in *Lib.* 1. *Epidem. Sect.* 2. he ſays, " That when the Urine
" of *Antiphon*, the Son of *Critobolus*, was thin, an
" Eruption of Blood happen'd, by which he was
" cured." So that Hemorrhages appearing even with Crudity, prognoſticate Recovery, whereas, at that Time, all other Evacuations, whether by Vomit, Stool, or Sweat, are of the ſymptomatic Kind. This, in my Opinion, happens becauſe the Blood can at any Time be commodiouſly evacuated from the Veins, and needs no Preparation, as the other Humours, which are to be evacuated by Stool or Vomit. And this Preparation is with Difficulty made, on Account of the Thickneſs or Viſcidity of the Humours, or the Narrowneſs and Obſtruction of the Paſſages. This I conceive to be the Reaſon why Phyſicians ought not to exhibit Purgatives in the Beginning of Diſeaſes. Thus *Hippocrates* in *Sect.* 1. *Aph.* 22. tells us, " That the Phyſician
" ought to purge concocted and not crude Matter,
" unleſs there ſhould happen to be a Redundance
" of it." But in the Evacuation made by opening a Vein we expect no Concoction, for which Reaſon Phyſicians preſcribe Phlebotomy in the Beginning of acute Diſeaſes; ſo that ſpontaneous Evacuations of Blood muſt alſo at that Time prove beneficial. Beſides, Eruptions of Blood are uſeful not only becauſe they evacuate the bad Blood, but alſo becauſe they cool the Body, and promote Perſpiration. Hence theſe Excretions of Blood are beſt and moſt laudable, which appear in the Height of the Diſorder when the Humours are totally concocted; but we are not to be afraid of Hemorrhages, which appear with the Signs of Crudity, eſpecially

when

when they are copious, which is the ſecond Sign of a laudable Hemorrhage. Thus *Hippocrates* in *Lib.* 2. *Epidem. Sect.* 1. tells us, " That copious Eruptions of Blood from the Noſe generally afford Relief:" And *Galen*, when ſpeaking of *Meto*, ſays, " That his Criſis was brought about, and his Life " preſerv'd by an Hemorrhage alone, tho' he had " very bad Signs." *Hippocrates* alſo in *Lib.* 1. *Epidem. Com.* 2. *Text.* 63. tells us, " That during a " certain Conſtitution in which burning Fevers " raged, thoſe were preſerved who had copious " Hemorrhages from the Noſe; nor, ſays he, did " I obſerve any one to die, who had ſuch Eruptions " of Blood in due Quantities;" and a little after he ſubjoins, " Some were ſeiz'd with a Jaundice on " the ſixth Day, but theſe were cured either by a " copious Diſcharge of Urine, or by Purging, or " by plentiful Hemorrhages, as happened to *He-* " *raclides*, who lay in the Houſe of *Ariſtocydes*, and " whoſe Diſorder was terminated by an Eruption of " Blood, by Purging, and a Diſcharge of Urine;" and *ibid.* he tells us, " That many had Eruptions " of Blood, eſpecially young Perſons and Adults; " but moſt of thoſe died who had no ſuch Erup- " tion." With Reſpect to the Diſorders of Women, terminated by Excretions of Blood, he ſpeaks in the following Manner, in *Lib.* 1. *Epidem. Sect.* 2. " In theſe Fevers the Menſes appeared in many, " ſome had an Eruption of Blood from the Noſe; " and this happened firſt to many young Women. " In ſome an Hemorrhage from the Noſe and " the menſtrual Evacuation appeared at the ſame " Time, which was obſerved in the Daughter of " *Detharſes*, who had a copious Hemorrhage from " the Noſe." Hence 'tis certain that copious Hemorrhages are laudable, and often terminate Diſorders in a critical Manner. Thus *Hippocrates* in *Lib.* 2. *Epidem. Sect.* 4. *Text.* 16. tells us, " That

" copious

" copious Hemorrhages from the Nose terminate " and remove many Symptoms, as happen'd to " *Heragoras*." And in *Lib.* 4. *Epidem. Text.* 37. he mentions a Woman, who being seiz'd with an Hemorrhage from the Nose on the fifth and sixth Days, had a Crisis on the seventh. Copiousness therefore is one of the principal or most considerable Signs of a laudable Hemorrhage or Eruption of Blood. But we are to guard against imagining that they are critical when they are copious, and too often repeated; since, in this Case, they are rather bad and symptomatic, for many have been cut off by them. *Galen* in *Lib. de Præsag. ad Posthumum* informs us, " That in violent Disorders immoderate Evacua- " tions sometimes happen." For this Reason Physicians are obliged to stop their Progress, as did *Galen* in the *Roman* Youth who had four Pounds and an half of Blood discharged from his Nose.

But of these immoderate Eruptions we shall treat more accurately in the next Chapter, and at present confine ourselves to the Signs by which the laudable copious Hemorrhages are distinguished from such as are bad. Besides other Signs common to all laudable Evacuations, the Patient easily bears a good Hemorrhage, becomes stronger, and more brisk and lively by it. If the Patient was before afflicted with Thirst, the Hemorrhage is laudable, if the Thirst is removed, the Fever extinguished, the Symptoms diminished, and the Pulse rendered better, more vehement, equal, and regular. During a quartan Fever, with which I was afflicted, I had six Pounds of Blood critically discharged from my Nose; and tho' this Evacuation seem'd immoderate, yet I was much the better for it, since my former Thirst, which was insatiable, was remov'd by it; and instead of perceiving any Languor, found myself brisker and stronger. These Symptoms (contrary to the Opinion of Physicians) seem'd

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to be critical, nor did I conclude it dangerous, tho' moſt Part of the Blood was diſcharged upon my being ſuddenly ſeiz'd with a Cough. Theſe are the Marks by which copious, critical Eruptions of Blood are diſtinguiſhed from ſuch as are bad and ſymptomatical.

The third Mark of critical and ſalutary Eruptions of Blood, is, that they appear on the critical Days; for on theſe the Appearance of Excretions, whether good or bad, lays a Foundation for making the more infallible Prognoſtic either of Recovery or Death. Thus the Author of *Coac. Præſag. Lib.* 4. *Text.* 45. and in *Lib.* 5. *Text.* 150. tells us, "That "acute Diſorders are terminated by Hemorrhages "from the Noſe and copious Sweats:" And in *Lib.* 1. *Epidem. Ægr.* 7. we are told, "That Hemorrha-"ges from the Noſe generally terminate Fevers "on the ſeventh, ninth, or fourteenth Day." The fourth Mark of ſalutary Hemorrhages is, that they be pre-indicated to happen on ſome of the critical Days; for Nature, on the indicatory Day, generally evacuates a ſmall Quantity of Blood, which is a Sign of a more copious Hemorrhage on the ſubſequent critical Day. In *Meto*, mention'd in *Epidem. Lib.* 1. *Ægr.* 7. on the fourth Day the Blood flowed twice from his Right Noſtril, and on the ſubſequent Day it was diſcharged copiouſly, by which Means his Diſorder was terminated. A fifth Mark of laudable Hemorrhages is, that the Excretion correſpond not only to the Idea and Nature of the Diſeaſe, but alſo to the Patient's Age, Conſtitution, and former Method of Life, and to the Seaſon of the Year, and Nature of the Climate. We have already obſerved that Excretions of Blood are of all other Evacutions the moſt proper in all acute Diſeaſes and Fevers, eſpecially thoſe of the ſynochous and burning Kind, as alſo in Inflammations of the Liver, Spleen, and Diaphragm. They

alſo

alſo frequently prove beneficial in a Pleuriſy, and a Phrenitis. Hence, in theſe Diſeaſes, Hemorrhages are more beneficial and uſeful than in others; and for the ſame Reaſon Hemorrhages are beneficial in ſuch as abound with hot Blood. After living upon bilious Aliments, or after the Signs of an hot Blood appear, if it is Summer, an hot Conſtitution, or a warm Climate, or if other Things concur to generate a bilious Blood, Hemorrhages are excellent Signs in the abovementioned Diſorders. Nay, 'tis a conſiderable Misfortune when they don't appear, as we are informed by *Hippocrates*, in *Lib.* 1. *Epidem. Com.* 2. *Text.* 17. "Many, ſays he, had Eruptions of Blood, eſpecially young Perſons and Adults; but moſt of thoſe died who had no Hemorrhages."

Sixthly, Theſe laudable Excretions muſt be adapted to the Part affected, which are to relieve either by Derivation or Revulſion. Thus *Hippocrates* in *Sect.* 6. *Aph.* 21. tells us, "That Varices or hemorrhoidal Diſcharges happening in Deliriums, terminate the Diſorder." And in *Sect.* 4. *Aph.* 25. we are told, "That black Stools are good." And *Galen* in *Comment.* tells us, "That the moſt powerful Remedy of Melancholy already form'd is an hemorrhoidal Diſcharge." And in *Sect.* 5. *Aph.* 32. we are told, "That if Women are afflicted with a Vomiting of Blood, the Diſorder is terminated by an Eruption of their Menſes." Hence in delirious Patients 'tis cuſtomary for Phyſicians to order the Application of Leeches to the hemorrhoidal Veins, in Order to procure an Evacuation of Blood; and this Practice is highly beneficial in thoſe who have theſe Veins large, or have been before accuſtom'd to Diſcharges from them, eſpecially if a due Quantity of Blood is evacuated, the Want of which is the Reaſon why this Method ſo often fails of Succeſs.

But in order to derive, and at the ſame Time evacuate the Humours from the Part affected, the Evacuation, whether natural or artificial, is beſt when made moſt immediately from the Side affected. Thus *Galen*, in *Lib. de Curat. per Sang. Miſſion.* commends what he calls an Evacuation, Κατίξιν, that is directly made. So that when the Liver labours under any Diſorder, the Blood is to be taken from the Right Side, and when the Spleen is affected from the left. *Hippocrates* alſo, in *Lib.* 2. *Epidem. Com.* 3. *Text.* 13. tells us, " That when " there is a painful Tenſion of the Rectum, Sides, " and Hypochrondria, and an Elevation of the " Spleen, Hemorrhages happen from the Noſe." And in *Lib.* 4. *Epidem.* we are told, " That Pa- " tients ſeiz'd with Horror, Anxiety, Loathing " of Food, and ſuch as are bilious or ſplenetic, " have painful Hemorrhages from the left Noſtril." Hence ſkilful Phyſicians in pleuritic Patients, order the Blood to be taken from the Side affected, and not from the oppoſite one.

Seventhly, Theſe Hemorrhages or Excretions of Blood are beſt, which either totally remove, or at leaſt greatly diminiſh the Diſorder, and its Symptoms. Excretions of this Kind were obſerv'd in *Heropythus*, mention'd in *Epidem. Lib.* 3. *Ægr.* 9. and concerning whom *Hippocrates* ſpeaks in the following Manner: " On the fortieth Day he had " a copious Hemorrhage from the Noſe, and was " not delirious, but was more deaf, tho' his Fever " was diminiſh'd." And *ibid. Ægr.* 13. we are told of the young Woman of *Lariſſa*, " That on " the ſixth Day ſhe had a copious Hemorrhage " from the Noſe, was ſeiz'd with an Horror, and " ſoon after had a profuſe warm Sweat, by which " her Fever was terminated." Thoſe Hemorrhages are not only good which remove the whole of the Diſorder, but alſo ſuch as alleviate its Symptoms.

Thus *Galen*, in *Lib.* 2. *de Mot. Muſcular. Cap.* 6. informs us, that he ſaw a Man afflicted with a Fever and concomitant Delirium for thirteen Days, totally and ſpeedily freed from both, by a copious Effuſion of Blood from the Noſe. *Hippocrates* alſo, in *Sect.* 4. *Aph.* 60. accounts thoſe Hemorrhages good, which terminate Deafneſs. And the Author of *Prorrhet*, in *Lib.* 1. *Text.* 152. tells us, " That " Head-Aches, Pains of the Neck, and Weak- " neſs of the whole Body, accompanied with Tre- " mors are terminated, tho' not ſpeedily by He- " morrhages." 'Tis alſo a Sign of a ſalutary Hemorrhage, when it alleviates Thirſt, becauſe the moſt laudable Blood, when not critically diſcharged, by becoming hot occaſions Thirſt. Beſides, a critical Evacuation allays Thirſt, not only by refrigerating the febrile Heat, and rendering the Body perſpirable, but alſo by moiſtening the Viſcera, becauſe the Humours are no longer drain'd by the Heat. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 27. tells us, " That thoſe who in Fevers have copious " Eruptions of Blood from any Part, have after " that Evacuation a Solubility of Body." Laſtly, by the beſt Evacuations of Blood, the Patient, as we have already obſerv'd, becomes ſtronger and more vigorous; and the Pulſe better. Theſe are the Signs of the beſt Evacuations of Blood, whether from the Noſtrils, by Vomit, Stool, the Menſes, or the Hemorrhoids.

CHAP III.

Of bad, ſymptomatical, and fatal Eruptions of Blood.

BY the Signs and Marks contrary to thoſe enumerated in the preceeding Chapter, we diſcover ſuch Excretions of Blood as are bad, and prognoſticate Death. The firſt bad Sign of Hemorrhages, is when they appear without any Signs of Concoction; for though we have already ſhewn that copious Hemorrhages are ſometimes beneficial when the Diſeaſe is crude; yet unleſs good Signs appear at the ſame Time, the Prognoſtic is dubious: And if Hemorrhages without Concoction appear with bad Signs, or ſucceed them, they prognoſticate Death.

It is alſo an Indication of bad Hemorrhages, when they have been preceeded by bad Signs in the Excrements. Such as black Urine, with a black Sediment, turbid, muddy, or aqueous Urine, fetid, virulent, black, or party-coloured Vomitings: Black colour'd, colliquative Stools are alſo the worſt of Signs. In a Word, if any of the bad Signs beforementioned either appear with, or ſucceed Hemorrhages, they prognoſticate Death. Thus *Prorrhet. Lib.* 1. *Text.* 126. we are told, "That if an Hemorrhage from the Noſe is either accompanied "with, or follow'd by Sweats, the Patient ſoon "after becomes cold; but this is a Sign that the "Diſorder is malignant; and as this Coldneſs happens ſometimes in the Extremities, and at others "in the whole Body, the latter is worſt, and moſt "formidable:" And *ibid. Text.* 127. we are told, "That after Eruptions of Blood, black Stools are "bad, as are alſo thoſe of a very red Colour, if "ſuch Eruptions happen on the fourth Day." *Galen* alſo, in his Comment on the ſubſequent Text informs us, that all Eruptions of Blood, accompanied

nied with Sweat, are of a malignant Nature. In *Lib.* 1. *Prorrhet. Text.* 129. we are told, " That " in acute Diſeaſes, a Deafneſs ſucceeding a mode- " rate Eruption of Blood, and black Stools is bad; " but in ſuch Diſorders a Diſcharge of Blood by the " Anus is a dangerous Sign, though it terminates " the Deafneſs." But I know a vigorous robuſt Man of *Bononia*, who from the firſt Day of an acute malignant Fever diſcharged about a Pound of Blood from his Noſe every Day, till the ſeventh, on which ſome Medicines being exhibited to ſtop it, it flowed from his Anus, together with a copious bilious Diarrhæa, which alſo continued from the firſt 'till the fourteenth Day, on which he had a perfect Criſis. But this Patient was only preſerv'd by Means of his great Strength. The Author of *Prorrhet. Lib.* 1. *Text.* 41. tells us, " That when " the Patient is coſtive, ſeiz'd with a Teneſmus, " or the Stools ſmall, black, or of a pyramidal " Figure, an Hemorrhage from the Noſe is a bad " Sign." And *Galen* in *Comment.* informs us, that thoſe who are parch'd, and rendered coſtive by a febrile Heat, cannot bear Evacuations. And in *Lib.* 2. *Coac. Præſag. Text.* 40. and 342. we are told, " That an Hemorrhage from the Noſe, ac- " company'd with a ſlight and ſcanty Sweat, is a " bad Sign." And *Lib.* 4. *Text.* 326. 'tis ſaid, " That violent Coldneſſes which, in Conſequence " of Hemorrhages, happen on critical Days, are " extremely bad." Hence 'tis obvious that Eruptions of Blood with bad Signs, are of an unlucky and dangerous Nature. Thus *Hippocrates*, in *Lib.* 3. *Epidem.* when ſpeaking of certain Patients ſays, " That nothing of a critical Nature appeared in " them, nor had they laudable Hemorrhages, nor " critical Abſceſſes." Hence Eruptions of Blood, without good Signs, are dangerous. Thoſe Hemorrhages are alſo bad, which do not correſpond

to the Idea of the Diſeaſe, the Nature of the Patient, the Conſtitution of the Climate, the Seaſon of the Year, the Age of the Patient, and his former Method of Life; for in cold and pituitous Diſorders, Eruptions of Blood are never good, but always bad. Thirdly, thoſe Hemorrhages are bad, which are not proper for the Parts affected. Thus in *Prorrhet. Lib.* 1. *Text.* 125. we are told, "That "Eruptions of Blood on the oppoſite Side are bad, "as for Inſtance, an Hemorrhage from the Right "Noſtril, when the Spleen or Hypochondria are "diſorder'd." For the ſame Reaſons *Hippocrates* in his Aphoriſms, condemns the vomiting eſpecially of black Blood in Fevers, and above all in extenuated Patients. Thus in *Sect.* 4. *Aph.* 23. He tells us, "That thoſe who in acute or chroni-"cal Diſeaſes, or when under Wounds, or exte-"nuated by any Cauſe, diſcharge a black Bile, or "a Matter reſembling black Blood, die the next "Day." Thoſe Excretions of Blood are alſo bad, by which the Patient, inſtead of being reliev'd or alter'd for the better, is render'd worſe. And if ſuch Excretions happen to be of the critical Kind, which do not terminate the Diſeaſe, Death may be prognoſticated: For *Galen*, in Conſequence of the Doctrine laid down by *Hippocrates*, in *Lib.* 2. *Epidem. Sect.* 1. tells us in *Prorrhet.* 1. "That ſome "of the critical Signs which do not terminate the "Diſeaſe are mortal, and others afford a dubious "Prognoſtic." Beſides, the Malignity of Hemorrhages is ſufficiently demonſtrated by the Languor, Inequality, and Badneſs of the Pulſe. Hemorrhages are alſo bad when the Quantity of Blood evacuated is either too large, or too ſmall, or not diſcharged all at once, but at Intervals, as happens in imperfect Criſes. Immoderate Effuſions of Blood are never good, but perpetually bad, becauſe they greatly diminiſh the innate Heat; in Conſequence

of

of which Nature easily succumbs to the Disease. Hence the Author of *Prorrhet.* in *Lib.* 1. *Text.* 133. tells us, " That profuse Ernptions of Blood " render the Discharge by Stool faulty," because they cool too much; and afterwards in *Text.* 134 he tells us, " That in critical Coldnesses, violent Eruptions of Blood are very bad," because they refrigerate the Body, and augment its farther Coldness. Thus *Hippocrates*, in *Prorrhet. Lib.* 1. *Text.* 65. affirms that Coldness, which continues without succeeding Heat, and Rigors in weak Patients is a dangerous Sign. And in *Sect.* 7. *Aph.* 9. he informs us, " That those whose Bodies are wasted by " immoderate Effusions of Blood, are seiz'd either " with a mortal Delirium, or with dangerous Con- " vulsions." In Disorders which are not of the violent Kind, Hemorrhages sometimes so refrigerate the Patients, that they fall into a Dropsy, as has been frequently observed. Thus *Galen* in *Lib.* 2. *Aph.* 72. speaks in the following Manner: " When an excessive Quantity of Blood is dis- " charged, either from the Uterus or Hemorrhoi- " dal Veins, or from an Ulcer, such Patients " have all or most of their Functions disorder'd, " and some have also a Dropsy." Scanty Hemorrhages are also bad, and such as are made Drop by Drop, or stop immediately after they are begun; but of these we shall treat in the subsequent Chapter.

CHAP. IV.

Of Prognostics, in acute Distempers, from small and suddenly ceasing Excretions of Blood, and Drops of Blood distilling from the Nose.

BLOOD discharg'd from the Nostrils, or any other Part, in a small Quantity, is sometimes good, where it shews the Beginning of a Crisis in some indicatory Day, as it proved in *Meton*, 1 *Epid. Sect.* 3. *Ægr.* 7. who had a moderate He-

morrhage from the Nose on the fourth Day, and on the next had a copious Effusion of Blood from the same Part, attending a Crisis. But the Case is not the same, when the Disease is in a perfectly crude State, much less, when the Excretion is attended with some pernicious Sign; for in such Circumstances a small Effusion of Blood discharged at once, or at Intervals, is as always a bad Sign, and a very sure Prognostic of Death, where the Disease appears not in the least concocted by it, nor the Patient at all relieved. However, on some Occasions it may be a very good Excretion, as when the Disease is not perfectly crude, and the other Signs are salutary; and if it be renewed in a very copious Measure on the next critical Day. But if it should either not happen on an indicatory Day, or not be succeeded by a plentiful Eruption, on an indicatory or critical Day, it will be only symptomatic; and if other bad Signs appear, and the Disease changes afterwards for the worse, a mortal Prognostic. It very rarely happens indeed, as far as we have been able to observe, that a small Excretion of Blood is salutary, but, on the contrary, is generally very pernicious, as always fore-shewing the length of the Disease, and often the Death of the Patient; especially when the Evacuation is not made by a convenient Passage, nor the Sick at all relieved by it. As for Example, if the Liver be inflamed, and the Excretion be made by the left Nostril; or the Spleen inflamed, and the Blood comes from the Right Nostril; or if the Uterus be affected, and the Discharge made, not by the Uterus, but by the Nose, or by Vomiting: And the same Judgment is to be formed, when neither the Fever, nor its Symptoms, are at all mitigated by such an Evacuation. Such then are the Indications of a small Excretion of Blood, from which nothing certain can be prognosticated, without considering the

the other Signs; and, if these are bad, the Excretion shews a difficult or doubtful Crisis, and with good Signs it portends the long Continuance of the Disease. We may conclude, therefore, that a small Excretion of Blood, not succeeded by one more copious, or an Excretion which stops on a sudden, as soon as begun, are pernicious to the highest Degree, as indicating an extreme Decay of Strength, according to *Galen Com. in* 1 *Prorrhet.*

We come now to consider what may be infer'd, or presag'd, from Excretions of Blood by Drops, since such Discharges very frequently happen in acute Fevers, especially in those of the inflammatory or burning Kind. Such Excretions, when they stop as soon as begun, in the Opinion of *Galen*, are worse than if they had never appeared. It is to be observed, that according to the various Quantities of the flowing Blood, the Eruption thereof is to be estimated. One Quantity of Blood is copious, continual, and discharges itself in a full Stream, and this appears in a perfect Crisis; another Quantity is discrete, or consists of distinct Portions, which, when continu'd to be evacuated at Intervals, sometimes foreshews a future Crisis; and there is a third Quantity, which discharges only a few Drops by the Nose, which Accident is sometimes occasioned by an external Cause; as by exposing the Head to the Rays of the Sun, drinking too freely of strong Wine, and the like. But when such an Eruption is owing to the Violence of the Fever, it indicates a vain Effort of Nature towards a Crisis, and the Disappointment to arise either from the Malignity of the Disease, the corrupt State of the Blood, or the Weakness of the Brain. This Excretion by Drops, in milder Disorders, where the other Signs are salutary, foreshews the long Continuance of the Disease, but in acute Distempers is a most certain Prognostic of Death: for it shews, as *Galen* says, *Com. in Lib. de R. V. J. A.* that Nature

 made

made an Attempt to discharge the superfluous, or, as he expresses it, *Com.* 1. *in Prorrhet.* redundant Matter, collected in the Brain, but was unable to effect it, either thro' its own Weakness, or the Thickness of the Blood, or the Denseness of the Parts, or thro' a Concurrence of some, or all of these Causes. Hence it appears, that all Distillations, or Droppings of Blood in acute Diseases are very pernicious, and Signs of Fevers of a bad malignant Quality, as *Galen* observes, *Com. in 3 Epid.* It was also an Observation of *Hippocrates*, 3 *Epid. Sect.* 3. on the Epidemic burning Fevers of the pestilential Constitution, that one of their concomitant Signs was, a small Excretion of Blood, which fell by Drops from the Nose; and that it was a pernicious Sign. And this is confirm'd by the same Author, 1 *Epid. Stat.* 3. where he informs us, " That when burning Fevers began to " be Epidemic, they gave manifest Indications to what Patients they would prove mortal." Then, after enumerating many pernicious Signs, which he had observed in the Beginning of those burning Fevers, he adds, " Nor had any of those who " were affected with these Symptoms an Hemorr- " hage from the Nose, but only an Excretion of a " small Quantity of Blood, which fell by Drops " from that Part." All Distillations, or Droppings of Blood therefore, in acute Diseases, are justly esteem'd pernicious Signs; in Confirmation of which we are told by *Hippocrates*, in the same Book, " That *Philiscus*, *Epaminon*, and *Silenus*, who had " a small Distillation from the Nose on the fourth " or fifth Day, died." Excretions of Blood by Drops then in acute Diseases are most certain Prognostics of Death; and most of all when the Blood is thick and black, according to the Author of the *Prorrhetica*, " Excretions of Blood by Drops from " the Nose, he says, are bad; and if the Blood " be black and sooty, mortal." And *Galen*, in his *Comment.* says, " That a Distillation of black

" and

" and unmix'd Blood indicates not only that the " Humours are agitated, and carried towards the " Head, but that the Blood is extremely parched " by a violent Heat, which has consumed all its " Humidity, and wasted its Ichor." And he had " said a little before, " That as all Distillations " from the Nose are of a dubious Event, so when " they appear black and thick, they prove extreme- " ly pernicious." But if such Excretions happen on one of the critical Days, they are most absolutely fatal, because on such Days all Signs, whether good or bad, are of the greatest Moment towards a Prognostication. Agreeably to this, we are told, 1 *Prorrhet.* 1. " That Distillations from the Nose " are fatal, (in the Case before described) as at " other Times, so especially on the fourth Day." And *Galen* on the Place quoted says, " A Distil- " lation from the Nostrils is always a bad Sign; " but when it happens on the fourth Day, it indi- " cates the extreme Malignity of the Distemper." For it seems as if Nature attempted to expel the redundant Matter collected in the Brain, but was too weak to effect what was intended. These Distillations, or Excretions of Blood by Drops, are no less fatal and destructive, when attended with other bad Signs. Thus in *Prorrhet.* 141. we read that " A small Distillation from the Nose, attended " with a Deafness and Listlessness, is of dubious, and " dangerous Consequence." But *Galen*, on the Place, reprehends the Author for saying, that such Distillations were of a dubious or difficult Nature, since they are, all of them, as he says, mortal. Again, *ibid.* 126. " If there be a Distil- " lation of Blood from the Nose, accompanied with " with a cold Sweat, and a Refrigeration of the " Extremities, it is a fatal Sign." We conclude then, that such Distillations are always pernicious, in the highest Degree, when attended with Deaf-

ness,

neſs, Liſtleſsneſs, Coma, Watchings, Deliriums, and the like; but eſpecially in Phrenſies: And this is confirmed in the *Epidemics*, by the Examples of *Philiſcus*, *Silenus*, the Wife of *Dromeades*, and *Praius*, to all whom this Symptom was fatal.

CHAP. V.

Of Preſages from Sweat, what it is, of how many Kinds, and of its Cauſes.

AS Diſeaſes are frequently terminated by Sweats, we ſhall therefore accurately conſider, how Death or Recovery may be predicted from them. In Order to this we ſhall firſt enquire what Sweat is, explain its Differences, and treat of its Cauſes, that we may the better know how it is generated. Thoſe then are ſaid to ſweat, who actually diſcharge a moiſt Humour through the Pores of the Skin, in Contradiſtinction to the Matter of Perſpiration evacuated thro' the ſame Pores, and which is by Phyſicians called an inſenſible Evacuation: So that Sweat may be defin'd a particular ſenſible Evacuation made thro' the Pores of the Skin. There are various Differences of Sweats deriv'd from their Conſiſtence, ſince ſome are thick and viſcid, others thin, and without any Lentor. They alſo differ in their Figure; ſince, according to *Hippocrates*, ſome are of the Form of Millet Seeds, and others reſembling Drops. Another Difference ariſes from their Colour; ſince ſome are yellow, and others green. In a Word, the Sweats muſt neceſſarily be of the ſame Colour with the Humours diſcharged thro' the Skin. Another Difference ariſes from their Taſte; ſince, according to *Galen*, in *Lib.* 10. *Simpl. Cap.* 10. *de ſudore.* all Humours evacuated through the Skin are of a ſaline and bitteriſh Taſte. Sweats alſo differ with Reſpect to their Smell, ſince ſome

are

are fetid, and others without any Smell at all. They alſo differ with Reſpect to their Quantity; ſince ſome are profuſe, others ſcanty, and others ſuppreſs'd as ſoon as they appear. Sweats are alſo diſtinguiſhed by their active Qualities, ſince all of them are either cold or hot, or of an intermediate Nature. They are alſo to be diſtinguiſhed by the Time in which they appear; ſince ſome ariſe in the Beginning, others in the Height, and others in the Decline of Diſeaſes. They are alſo to be diſtinguiſhed by the Time they laſt; ſince ſome are continual and permanent, and others intermitting. Some appear with the Signs of Concoction, and others with thoſe of Crudity: Some are critical, and terminate the Diſorders in which they happen; whilſt others are ſymptomatical: Some are alſo periodical; ſuch as thoſe which happen in tertian and quartan Fevers. But we ſhall now treat of the Generation of Sweat, in order to which we ſhall enquire into its Matter and efficient Cauſe. *Galen* then in *Lib.* 10. *Simpl. Cap. de Sudore* informs us, that the Matter of Sweat, and that of Urine is the ſame, tho' in ſound Perſons the former is more elaborated; ſince it penetrates thro' all the Interſtices of the Parts till it arrives at the Skin. Hence 'tis obvious that Sweat is the thinner Part of the Aliments called Serum, which is mixed with a little bilious Subſtance, and which, by its Thinneſs, is eaſily excluded from the Body thro' the Pores of the Skin. So that a groſs Humour ſeems unfit for the Generation of Sweat. Hence thoſe who eat and drink much, have plethoric Habits, and open Pores; as alſo thoſe who have a great deal of Humours in their Liver or Spleen, are ſubject to many Sweats. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 41. tells us, " That much Sweat, after " Sleeping, without any manifeſt Cauſe, indicates " that the Perſon eats plentifully: But if this hap- " pen to Perſons who do not eat much, Evacuation

" is

" is neceſſary." Hence in ſound Perſons, the Sweat is either the thin Part of the Serum, or a redundant Humour in the Body. But in ſick Patients the Sweat is ſometimes the thinner Parts of moiſt Aliments, which is alſo obſerv'd in thoſe who uſe a bad Regimen. But for the moſt Part it ariſes from thin redundant Humours, conſiſting of Blood, yellow Bile, and pituitous cold Humours. Hence *Galen*, in *Lib.* 3. *de Criſibus*, *Cap.* 3. affirms, that Sweat is peculiar to all Fevers, eſpecially thoſe of the burning Kind; that it terminates Semitertians, Quotidians, and Quartans, and proves beneficial in violent Inflammations, Diſeaſes of the parotid Glands, Lethargies, and all other Diſorders of the Head; becauſe all thin Humours, whether hot or cold, eſpecially if putrid, may be propell'd thro' the Skin by Way of Sweat. Sometimes the native alimentary Moiſture of the ſolid Parts is colliquated, ſo as to be evacuated by Sweat; but this only happens in fatal Diſorders.

Sweat is excited by Heat, whether natural or artificial, ſince it attenuates the Humours, and conveys them to the Skin, ſo that Bodies begin to ſweat as ſoon as they become warm. Hence it is, that in continual Fevers, the intenſe Heat ſucceeding the Rigor, generally produces profuſe Sweats; for during the Rigor, the Heat is retracted to the internal Parts, but afterwards breaks out, and diffuſes itſelf thro' the whole Body, attenuates the Humours ſo as to change them almoſt into Vapours; and by this Means excites a Sweat. Thus *Hippocrates*, in *Lib.* 1. *Prognoſt. Text.* 26. tells us, " That ſome " Sweats proceed from a Reſolution of the Body, others from the Violence of Inflammations." *Galen* in *Lib.* 3. *Prorrhet. Com.* 33. informs us, that by the Reſolution of the Body, there is produc'd a gentle Moiſture on the Skin, which the *Greeks* call εφιδρωσις, and *Galen* a Deſudation, either on the whole

whole Body, or upon the Head and Thorax, which indicates the Weakneſs of the retentive Faculty, or a Redundance of Humours in the ſweating Parts. The Violence of an Inflammation may alſo ſo oppreſs Nature, and by the Heat ſo attenuate the Humours, that the thinner Part of them is conveyed to the Skin. Hence Sweat is excited by Heat attenuating and propelling to the Surface of the Body, the Serum, the Blood, the Bile, or Phlegm. In thoſe Fevers which the *Greeks* called *Elodes*, and we ſudorific, Sweat is a peculiar Symptom, and the Humours are by the internal Heat, reſolved into a perpetual Vapour or Moiſture. But Deſudations which, according to *Galen*, are ſmall Sweats, either on the whole Body, or on the ſuperior Parts, and which afford no Relief, proceed from another Cauſe: For according to *Hippocrates* in *Prognoſt.* theſe ariſe from the Reſolution of the Body, the Violence of an Inflammation, or, according to *Galen*, the Reſolution of the retentive Faculty, which ſuffers not only the excrementitious, but alſo ſome of the alimentary Fluids to be diſcharg'd by Sweat. But now we proceed to conſider the Prognoſtics drawn from Sweats, and ſhall firſt treat of ſuch as are good and ſalutary.

CHAP. VI.

Of good and ſalutary Sweats, which preſage the Recovery of the Patients.

IT often happens that Perſons labouring under acute Diſeaſes, have them terminated by the copious Eruption of critical Sweats. Nor is this to be wondered at, ſince, according to *Galen*, in *Lib. Art. medend. Text.* 99. the whole Body is evacuated by Sweat. Laudable Sweats then are known by theſe Marks: Firſt, they appear manifeſtly with the

the Signs of Concoction, as we are informed by *Galen*, in *Lib.* 1. *de Crisibus*, *Cap.* 7. because those Sweats which prognosticate a happy Termination of the Disease, do not appear in the Beginning, but either in the Augmentation or Height, when the Disease is absolutely concocted, or the Concoction duly carrying on. Without this Mark, Eruptions of Sweat are of no Use, since they prognosticate long Diseases, and Relapses, and indicate either that the Patient will have no Crises, or, according to *Hippocrates*, in *Epidem. Lib.* 7. *Sect.* 2. that he will die. Whereas Sweats appearing after Concoction, denote a speedy Crisis, and a certain Recovery. But crude and unconcocted Sweats, or such as terminate in malignant Abscesses, indicate the Want of a Crisis, Pains, a Relapse, the Length of the Disease, or Death. Sweats of a salutary Nature must therefore appear after the Signs of Concoction.

A second Mark of salutary Sweats is their appearing on some critical Day. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 36. tells us, " That in Persons la-
" bouring under Fevers, those Sweats are good
" which appear on the third, fifth, seventh, ninth,
" eleventh, fourteenth, seventeenth, twentieth,
" twenty-seventh, and thirty-fourth Days, since such
" Sweats critically terminate the Disorder; whereas
" Sweats which happen on other Days, denote Pain,
" the Length of the Disease, or a Relapse." *Galen* in his *Comment.* says, that *Hippocrates* has either omitted the fourth Day, because the Crises and Accessions of many acute Disorders happen on the odd Days, and at the same Time, or that the Editors have, thro' a Mistake, omitted the fourth Day. But I cannot help admiring the Truth of *Hippocrates*'s Observation, since I have rarely seen salutary Sweats happen on the fourth Day.

A third

A third Mark of ſalutary Sweats is that they ſucceed a Kind of critical Rigor; for Nature, after the Expulſion of thoſe thin acute Humours, which vellicate the ſenſible fleſhy Fibres, induces, according to *Galen*, in *Lib. de reg. Convulſ. & Palpt.* a Rigor and Coldneſs of the Extremities. And when Nature is vigorous, the Heat breaking out after this Rigor and Coldneſs, excites an acute and violent Fever, by the Heat of which the Humours are attenuated, and copiouſly diſcharged by Sweat. *Hippocrates* alſo, in *Epidem. Lib.* 1. *Ægr.* 6. pronounces thoſe Sweats beſt, which are ſucceeded by a Rigor, in theſe Words, " In an acute Fever he ſweated, " and was ſeized with a Rigor;" which alſo happened to the Woman who lay on the Shore, with Reſpect to whom, *ibid. Ægr.* 13. we are told, " That on the eleventh Day ſhe was ſeiz'd with a " Rigor, then with a burning Heat, after which " ſhe ſweated, and was freed from her Fever." In *Lib.* 3. *Epidem. Ægr.* 5. we are told of *Charion*, " That on the ſeventeenth Day he was ſeiz'd with " a Rigor, and an acute Fever, after which he " ſweated, and was critically freed from his Diſor- " der. *Hippocrates* alſo, in *Sect.* 4. *Aph.* 58. tells us, " That if a Rigor happens in an acute Fever, " the Diſorder is terminated;" becauſe, according to *Galen*, theſe Rigors are ſucceeded by good Sweats, or other laudable Evacuations. Hence 'tis a good Sign when Sweats ſucceed Rigors. Thus *Galen*, in *Lib.* 9. *de Criſibus. Cap.* 3. tells us, " That in thoſe who " have a Rigor, ſweat is beſt;" and in 1 *Prorrhet. Com.* 3. we are told, " That the Sweats which ſuc- " ceed Rigors are good, if they appear with the " Signs of Concoction." *Hippocrates* in *Lib.* 1. *Epidem. Text*, 64. tells us, " That many of the " Patients, in a certain Conſtitution, were ſeiz'd " with a Rigor about the Criſis, eſpecially thoſe

" who had no Eruptions of Blood, and who, after
" their Rigor, ſweated."

A fourth Mark of good Sweats is, that they be warm, copious, and appear all over the Body; ſince it is a Sign that the vital Faculty is ſtrong, when it diffuſes the Heat equally thro' all the Body, and reſolves the redundant Humours equally in all its Parts; which does not happen when the vital Faculty is languid, or when the Patient labours under a malignant Diſeaſe; for in ſuch Caſes the Sweats are unequal, in ſome Parts copious, and in others little or none at all. Hence copious warm Sweats are beſt, when they appear all over the Body, whereas ſuch as appear only on the Head, or Thorax, or ſcanty all over the Body, or cold, are highly dangerous, as we ſhall ſhew in the next Chapter. This is often obſerv'd by *Hippocrates*, eſpecially in *Lib.* 3. *Epidem. Ægr.* 6. with Reſpect to *Pericles*, of whom we are told, " That on
" the fourth Day, about Noon, a profuſe warm
" Sweat broke out all over his Body, by which he
" was freed from his Fever, and had no Relapſe," *Ibid. Ægr.* 10. we are told of *Nicodemus*, " That
" a copious warm Sweat broke out all over his
" Body, by which his Fever was critically termi-
" nated." *Ibid. Ægr.* 11. we are told of the melancholic Woman, " That towards Night a copious
" warm Sweat appeared all over her Body, by
" which ſhe was freed from her Fever, and ſlept
" in a natural Manner." *Ibid. Ægr.* 12. it is ſaid
" of the young Woman *Lariſſa*, " That ſhe
" was ſeiz'd with an Horror, immediately after
" which appeared a profuſe copious Sweat all over
" her Body; by which Means ſhe was critically
" freed from her Fever."

A fifth Mark of laudable Sweats, according to *Hippocrates* in *Prognoſt.* is that they appear in the Form of large warm Drops all over the Body.

Hippo-

Hippocrates alſo in *Prognoſt.* gives it as an important Mark of laudable Sweats, that they totally and entirely terminate Fevers. Thus all along in his Epidemics, when ſpeaking of critical and laudable Sweats, he ſays, that the Fever ceas'd, on that Account, becauſe the total Ceſſation of the Fever is the moſt infallible Sign of a ſalutary Sweat. According to the ſame Author, in *Prognoſt.* thoſe Sweats are alſo good, which appearing copiouſly all over the Body, render the Patient more able to ſupport and bear his Diſorder; becauſe they alleviate the Diſeaſe, and leſſen its Symptoms. But theſe are different from the beſt Sweats, becauſe they do not produce a perfect Criſis, and prognoſticate a ſlow Recovery. Many Sweats of this Kind were obſerved by *Hippocrates*, eſpecially in the Patient, who lay in the Garden of *Dealces*, and of whom, in *Epidem. Lib.* 3. *Ægr.* 3. he ſpeaks in the following Manner, " On the ſeventeenth Day his Extre-
" mities were cold, he was covered up with Cloaths,
" his Fever was acute, and a Sweat appeared all
" over his Body, which alleviated his Diſorder;
" he perceiv'd the Taſte of Things better than
" before, tho' he was not free from his Fever. On
" the twentieth he ſlept, was free from a Delirium,
" ſweated, and was freed from his Fever; he had
" no Thirſt, but his Fever return'd, and was
" not perfectly and critically terminated till the
" fourtieth, by frequent pituitous Stools, and a
" copious Sweat all over his Body." Theſe are the Marks of laudable and critical Sweats, which *Hippocrates* in *Prognoſt.* has comprehended in the following Paſſage: " The beſt Sweats in acute
" Fevers are ſuch as happen on a critical Day, and
" entirely remove the Fever. Thoſe are alſo good
" which continue for a long Time, and enable the
" Patient to bear the Diſeaſe more eaſily; but if
" they produce no ſuch Effect, they are uſeleſs."

Good Sweats are known not only by these Marks, but also by the Appearance of other good Signs along with them; such as laudable Hemorrhages, and other good Evacuations, by which the Patient is rendered easier. *Hippocrates* every where in his *Epidem.* says, that he has observed Sweats of this Kind, especially in *Cleonactides*, *Lib.* 1. *Epidem. Ægr.* 6. in *Meto*, *ibid. Ægr.* 7. in *the Woman who dwelt upon the Shore. ibid. Ægr.* 13. in *Melidea. ibid. Ægr.* 14. in the *Patient who lay in the Garden of Dealces. Lib.* 3. *Epidem. Ægr.* 3. in *Charion*, *ibid. Ægr.* 5. in *Pericles*, *ibid. Ægr.* 6. in the *Young Woman of Abdera*, *ibid. Ægr.* 7. in *Anaxion*, *ibid. Ægr.* 8. in *Nicodemus*, *ibid. Ægr.* 10. in the *Melancholic Woman*, *ibid. Ægr.* 11. and in *the young Woman of Larissa*, *ibid. Ægr.* 12. and in a great many more, in whose Cases the Marks of good Sweats may be discovered, and the Physician enabled to know such as are salutary.

CHAP VII.

Of bad Sweats, which prognosticate Death.

BAD Sweats in acute Diseases, are by *Hippocrates*, in *Prognost.* said to be such as neither remove the Fever, nor enable the Patient to bear it more easily; that is, such as do not relieve the Patient, tho' they appear all over the Body. But those are worse, which appear only on some Parts of the Body, and afford no Relief. Those are still worse which render the Disease more violent; and the worst of all are such as are cold, or only appear about the Head, Countenance, or Neck; since these, in violent Fevers, prognosticate Death; and in such as are mild, the Length of the Disorder. But we shall comprehend all the bad Sweats under distinct Heads, that we may be able

able to form our Prognoſtics from them with the greater Certainty. Firſt then we ſhall conſider ſuch as appear when the Diſeaſe is crude, and without any Signs of Concoction. Secondly, ſuch as are bad, either on Account of their too large, or too ſmall Quantity. Thirdly, ſuch as are hot or cold. Fourthly, ſuch as appear on particular Parts of the Body. Fifthly, ſuch as afford no Relief, or render the Patient worſe. And laſtly, ſuch as are attended with bad Signs. For the more accurate Knowledge of the firſt of theſe, we ſhall diſtinguiſh Sweats into thoſe of the periodical, thoſe of the critical, and thoſe of the ſymptomatical Kind. A periodical Sweat is that which happens in the Periods of Intermittents, ſuch as Tertians and Quartans: Of this Kind was the Sweat of *Pythodorus*, mention'd by *Hippocrates*, in *Lib.* 7. *Epidem. Text.* 4. A critical Sweat, of which we have treated in the preceeding Chapter, is that which, in continual Fevers happens on ſome of the critical Days, and either alleviates, or totally removes the Fever. The Effect of this we call a Criſis, which is either perfect or imperfect. The Marks of critical Sweats, as we have before obſerved are, that they appear after the Signs of Concoction on a critical Day, when Nature is ſtrong, as alſo that they be copious, warm, and all over the Body, that they do not impair the Strength, but terminate, or at leaſt diminiſh the Diſorder, and its Symptoms. Symptomatical Sweats are oppoſed to thoſe of the critical Kind, becauſe they happen by Way of Symptom, and are never beneficial, but generally prognoſticate either Death, the Length of the Diſeaſe, Relapſes, or Pain and Uneaſineſs. All theſe Sweats, therefore, as well as other Excretions, are ſymptomatical, which appear when the Diſeaſe is crude, and without any Signs of Concoction; for at that Time all Excretions in continual Fevers are bad, as we have

ſhewn, when ſpeaking of the Prognoſtics drawn from Concoction, Crudity and Excretion. Hence thoſe are bad Sweats, which appear when the Diſeaſe is crude, and without any preceeding manifeſt Sign of Concoction. Thus *Hippocrates*, in *Lib.* 2. *Epidem. Sect.* 1. informs us, that Sweats appearing in the Beginning of Diſeaſes, render'd the Prognoſtic dubious. But if Sweats of this Kind only appear on the Head, the Face, the Neck, or the Thorax, they are ſo much the worſe; but ſuch as are cold, ſmall, ceaſe immediately, or are profuſe, continual, or immoderate, are of all others the worſt. But we now come to conſider ſuch as are too copious, ſuch as are too ſcanty, and the total Want of Sweat. Copious Sweats then are ſuch as break out in thick, large Drops, or ſuch as are long continued and profuſe, which, according to *Galen*, in *Lib.* 3. *de Criſibus*, *Cap.* 2. happen either on Account of the Relaxation of the Body, or the Subtilty of the Liquor evacuated. Theſe and the Sweats proceeding from a Relaxation of the Body, do not generally appear in Drops, but flow conſtantly. Hence in Fevers copious Sweats proceeding neither from the Thinneſs of the evacuated Fluid, nor the Relaxation of the Body, perpetually denote a Redundance of Humours, according to *Galen*, in *Sect.* 4. *Aph.* 44. in which *Hippocrates* tells us, "That much Sweat happening "after Sleep, with any manifeſt Cauſe, denotes that "the Patient eats plentifully, but if ſuch an Acci-"dent happens to thoſe who eat ſparingly, it indicates "the Neceſſity of Evacuation." *Galen* alſo affirms that copious Sweats denote a Redundance of Excrements. Such Sweats therefore appearing in Fevers, and not terminating them, are always bad, becauſe they denote a Redundance of Humours, for concocting and ſubduing which, Nature requires a long Time. Hence ſuch Sweats often prognoſti-

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cate Death in acute Diſeaſes, in which Nature is ſoon extinguiſhed. Hence *Hippocrates*, in *Sect.* 4. *Aph.* 42. tells us, " That copious, continual cold Sweats " are bad, ſince the Cold denotes the more violent, " and the Hot the leſs violent Diſorder." Both, according to *Galen* in *Comment.* denote a Redundance of Humours; the hot of hot Humours, and the cold of ſuch as are cold, which are the moſt dangerous Kind, ſince they neither terminate the Fever, nor alleviate it, but appear when the Diſeaſe is crude; ſo that they prognoſticate the Length of the Diſeaſe, Relapſes, and Pain. The Author of *Prorrhet.* in *Lib.* 1. *Text.* 58. calls ſuch Sweats unprofitable in acute Fevers, and in *Epidem. Lib.* 1. *Sect.* 2. *Hippocrates*, when ſpeaking of certain Patients, ſays, " That their copious Sweats were " ſo far from relieving them, that they did them " Harm." Sweats which are not copious, but long continued, are alſo bad, ſince they generally proceed from a Relaxation of the Pores of the Body, or a dangerous Privation of Strength. Sweats of this Kind appear in Syncopes, as we are informed by *Galen*, in *Lib.* 3. *Symptom. Cap.* 2. *Com.* 41. and in *Sect.* 4. *Aph.* 41. he tells us, " That if a copious " Sweat does not appear, this happens on Account " of a Privation of Strength, or a Relaxation of " the Pores of the Body." All Sweats of this Kind are bad in acute Diſorders, becauſe they denote the Languor and Weakneſs of Nature; but copious and continual Sweats are ſtill worſe, ſince they at once denote a Want of Strength, and a Redundance of Humours. By ſuch Sweats inevitable Death may be prognoſticated, as happened in *Eraſinus*, mentioned in *Epidem. Lib.* 1. *Ægr.* 8. of whom 'tis ſaid, " That he had a Fever, with a continual Sweat;" and in the phrenitic Patient mention'd in *Epidem. Lib.* 3. *Ægr.* 4. of whom 'tis ſaid, " That " he vomited a virulent Matter, laboured under an

" excessive Fever, and had a copious and continual " Sweat all over his Body." Others, in other Editions read this Passage not as *Galen* does, but in the following Manner, " He had a copious and conti- " nual Sweat of the Head and Neck thro' the " whole Day;" since they who fall into Deliquiums sweat about the Head and Neck. But this is not a Reason why we should not, with *Galen*, read, *all over the Body*; since Physicians well enough know, that phrenitic Patients, a little before their Death, sweat all over the Body. Hence we infer, that in acute Diseases copious Sweats, which do not prove critical, are not only useless, but also generally prejudicial and mortal; but they are the most infallible Prognostics of Death, when they are accompanied wi h great Weakness. In acute Diseases continual Sweats, whether copious or scanty are also dangerous. Scanty Sweats are no less bad than such as are too copious; thus *Galen*, in *lib.* 3. *De symptom. Caus.* informs us, that scanty Sweats appear when the superfluous Humours are few, or glutinous, or thick, or when the Passages are too narrow: These Passages are also obstructed by glutinous and thick Juices, whilst the cutaneous Pores are contracted by an Atrophy, Refrigeration, or Softness. If these scanty Sweats appear on a critical Day they infallibly denote the insufficiency of Nature to expel the peccant Humours, either on account of their thickness, or the constriction of the Passages. But when the Passages are not constricted, which may be known when the Skin is neither contracted by an Atrophy nor refrigerated, nor too soft, scanty Sweats, when the Signs of a Redundance of Humours are present, denote a Thickness and Lentor of the Humours; and if the Patient's Strength is much exhausted, such Sweats prognosticate Death, especially if they appear without any Signs of Concoction, since in that Case all Excretions are symptomatical, and denote a Redun-

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dance of Humours, as we have elſewhere ſhewn; for ſuch Sweats indicate that Nature has begun to expel the Humours thro' the cutaneous Pores, and was only able to evacuate the thinner Part of them, which is not ſufficient for terminating the Diſeaſe. Of this Kind are generally thoſe which ceaſe immediately after they are begun, and which are juſtly condemned by *Galen*, in 1. *Prorrhet. Com.* 1. in theſe Words, " Sweats which have begun, but forthwith " ceaſe, are bad." Hence ſcanty Sweats are always bad, eſpecially that Kind of them which the *Greeks* call εφίδρωσις or Moiſture; which appears ſometimes on the whole Body, tho' moſt frequently about the Head, Neck and Breaſt, and ſometimes about the Extremities. Thus *Galen*, in 3 *Prorrhet. Com.* 33. ſpeaks in the following Manner, " The Word εφίδροσις frequently occurs in this Book, but we " no where ſo diſtinctly know whether the Author " meant by it, thoſe Sweats which appear about the " Head and Thorax, or thoſe which flow from the " whole Body, and are ſo ſcanty as to afford no " Relief." Both theſe kinds of Sweats are bad, but eſpecially that on the ſuperior Parts, ſince all deſudations indicate either a Redundance of Humours in the Parts ſweating, or an Imbecillity of the retentive Faculty, both of which happening in the Head and Thorax, are worſe Signs than in any other Parts. We have already conſidered the Prognoſtics of theſe Sweats, which proceed from a Redundance of Humours. Thoſe Sweats are alſo dangerous, which in conſequence of the weak and languid ſtate of Nature, cannot be retained. Theſe Deſudations are diſtinguiſhed from ſuch as ariſe from a Plenitude of Humours, by this, that the latter generally ariſe about the Head, Neck, Thorax and Extremities, and the Sweat is ſcanty, but does not increaſe, is rarely hot, but generally pretty cold. The Pulſe alſo is very languid, and other Signs denoting the

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feeble State of Nature appear. Among the Sweats of this Kind, are ſuch as appear after immoderate Evacuations. Thus in *lib.* 1. *Prorrhet. Text.* 26. we are told, " That a ſcanty Sweat, with Refrige-
" ration ſucceeding an Hemorrhage from the Noſe,
" is bad." Not to ſweat at all, is alſo a bad Sign in all thoſe Diſeaſes, which, according to *Galen*, in *lib.* 3. *De Criſibus*, are commonly terminated by Sweats, ſuch as all Fevers, eſpecially thoſe of the continual and burning Kind; for *Galen* in *lib.* 3. *Epidem. Com.* 1. informs us, That it is a treacherous Remiſſion, when ſuch Diſeaſes are either totally removed, or the Symptoms diminiſhed without Sweat, or ſome other laudable Evacuation. *Hippocrates* alſo in *Sect.* 2. *Aph.* 27. tells us, " That the Allevia-
" tions which appear without a ſufficient Cauſe,
" are not to be confided in," which happened to *Hermocrates*, mentioned in *Epidem. lib.* 3. *Ægr.* 2. and in the Daughter of *Euryanactes*, *ibid. Ægr.* 6. of whom *Hypocrates* ſays, " On the fourteenth Day
" ſhe was free from her Fever, did not ſweat, ſlept
" well, and was free from a Delirium, her Urine
" was as before; about the ſeventeenth Day her
" Fever returned; on the ſubſequent Days ſhe be-
" came hot, her Fever was acute, her Urine thin,
" and ſhe became delirious; on the twentieth Day
" her Fever ceaſed, but ſhe did not ſweat." But thoſe treacherous Remiſſions, without Sweats or other laudable Evacuations, are, by the ſubſequent bad Signs, diſtinguiſhed from thoſe ſalutary Criſes which are followed by good Signs. Of the former Kind, were the Signs ſucceeding the Criſes of *Hermocrates*, of whom is ſaid, " On the twentieth Day
" he was freed from his Fever, did not ſweat, he
" had a perpetual Averſion to Food, had no Deli-
" rium, but was not able to ſpeak, his Tongue
" was dry, and he had no Thirſt, his Sleeps were
" ſomewhat of the comatous Kind." Thus in burn-

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ing Fevers we may ſometimes prognoſticate Death from the want of Sweats. We now proceed to conſider cold Sweats, which are often obſerved to prove fatal in acute Diſorders; but that the Prognoſtics of ſuch Sweats may be the better underſtood, we ſhall firſt inquire into their Cauſes, and the Method of their Generation. Such Sweats then, becauſe they ariſe from a cold crude Matter in continual Fevers, indicate a Redundance of Humours, as *Galen* in *lib.* 4. *Aph.* 42. has demonſtrated, eſpecially when they are copious. Cold Sweats, according to the ſame Author, in *lib.* 4. *Aph.* 37. "happen when "the Humours putrefy in the Veſſels, and Nature, "which governs the ſolid Parts, and which, accord-"ing to *Hippocrates*, is the native Heat, is either "totally extinguiſhed or near to it. In this Caſe, "what is evacuated from the Veſſels, is cold, tho' "the Heat ariſing from Putrefaction may ſome-"times be moſt intenſe. This is therefore a fatal "Sign, indicating that the Body abounds with Hu-"mours, the coldneſs of which, can neither be ſur-"mounted by the native nor by the febrile Heat." Hence 'tis obvious that cold Sweats denote, not only that there is a Redundance of cold Humours, but alſo, that Nature is extinguiſhed, or nearly ſo. But when there is a violent Heat in the Veſſels, ariſing from a Putrefaction of their Contents, the native Heat is retracted to the internal Parts; then there are Refrigerations of the Extremities by a cold Humour, becauſe they act on each other; and if they do, the cold Sweat muſt either become hot, or the Heat muſt be extinguiſh'd by the cold Humour, ſince, according to *Galen*, in *Lect.* 4. *Aph.* 37. "If in ſuch Diſeaſes as are not acute, but "mild, the natural Heat is not extinguiſh'd, but "continues a long Time, it heats the Humours; "whereas in violent Diſorders the Strength being "ſpeedily impair'd, it is totally extinguiſh'd."

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Thus *Hippocrates*, in the ſame Aphoriſm, tells us, " That cold Sweats, in an acute Fever, prognoſti- " cate Death; whereas, in milder Diſeaſes, they " denote their Length or Continuance, becauſe, " according to *Galen*, if the Fever is ſlight, the " Patient may be preſerv'd, ſince, in Proceſs of " Time, the redundant Humours may be con- " cocted and ſubdued by Nature: But in an acute " Fever, cold Sweats not only proceed from a " dangerous Cauſe, ſince in it Nature often ſpon- " taneouſly reſolves and exhauſts the Strength, " but are alſo a bad Sign, ſince they denote a Re- " dundance of cold Humours, which cannot be " chang'd by the febrile Heat." If it ſhould be aſk'd how theſe Humours, which are cold, and conſequently unfit for Motion, when Nature is languid, and almoſt extinguiſh'd, are convey'd to the Skin; I anſwer, That this Humour, tho' naturally indiſpoſed to Motion, being ſomewhat warm'd by the febrile Heat, is convey'd to the Skin, where it loſes its adventitious Heat, and is diſcharg'd cold. Cold Sweats then, whether copious or ſcanty, univerſal, or only on the Head, Neck, Thorax and Extremities, always prognoſticate Death. Sweats of this kind were, by *Hippocrates*, obſerv'd in *Philiſcus*, mention'd in *Lib.* 1. *Epidem. Ægr.* 1. in the Wife of *Dromedais*, *ibid. Ægr.* 11. in the Woman who lay in the *Forum Mendacium*, mention'd in *Epidem. Lib.* 3. *Ægr.* 12. in *Pithio*, *ibid. Ægr.* 3. in all of whom, when at the Point of Death, cold Sweats flow'd from the whole Body. But ſcanty cold Sweats, or thoſe about the Head, Neck and Extremities, are ſtill more fatal Signs, becauſe they happen when the vital Faculty is almoſt extinguiſh'd. Thus *Hippocrates*, in *Prognoſt.* juſtly affirm'd, " That " cold Sweats were of all others the worſt, ſince, " in acute Diſeaſes, they prognoſticated Death, and " in thoſe of a milder Nature, the Length of the

" Diſeaſe,"

" Diſeaſe." Cold Sweats are therefore always bad. *Hippocrates*, in *Lib.* 3. *Epidem.* when ſpeaking of a certain peſtilential Conſtitution, ſays, " That the " Sweats were continual, unſeaſonable, cold, and " copious." The fatal Nature of cold Sweats may be farther prognoſticated from the concomitant, and much more from the ſubſequent Signs, which are always bad. Of this kind were the Signs obſerv'd in *Philiſcus*, and the other Patients now mention'd; for of *Philiſcus* 'tis ſaid, " That about the fifth " Day he became dumb, and had a cold Sweat, " his Extremities became livid; and on the ſixth " Day, about Noon, he died." Concerning the ſame Patient he alſo ſays, " That he had perpetu- " ally cold Sweats;" and concerning the Wife of *Dromedais*, he ſays, " On the ſixth Day ſhe was " ſeiz'd with a Rigor, but ſoon after became warm, " and ſweated the whole Time. Her Extremities " became cold; ſhe was delirious, and had a large " rare Reſpiration: Soon after ſhe was ſeiz'd with " Convulſions of her Head, and died ſuddenly." And concerning the Woman who lay in the *Forum Mendacium*, mention'd in *Lib.* 3. *Epidem. Ægr.* 12. 'tis ſaid, " That on the ſeventh Day ſhe was ſeiz'd " with a Rigor, her Fever was acute, her Thirſt " intenſe, and her Body reſtleſs. Towards the " Evening ſhe had a cold Sweat all over her Body, " and a Coldneſs of the Extremities." Hence 'tis ſufficiently obvious, that cold Sweats in acute Diſeaſes are always mortal, eſpecially if they appear on any of the critical Days, and are ſucceeded by fatal Signs. We now come to conſider Sweats appearing on particular Parts of the Body. As we have obſerv'd, that thoſe Sweats are beſt, which appear all over the Body, ſince they denote the Strength of Nature, and indicate, that the Humours are not retain'd within by the Malignity of the Diſeaſe, or other morbific Cauſes; ſo on the con-

trary, when any of the internal Viſcera is diſorder'd by a violent Inflammation, or a Redundance of Humours, all the Parts of the Body do not ſweat alike. Sweats therefore, which do not appear on the whole Body, but on the Head or Thorax, according to *Hippocrates* in *Prognoſt.* prognoſticate Death in acute Diſeaſes, whether they are cold or hot; and in milder Diſeaſes, Relapſes and Pains. Thus *Hippocrates*, in *Lib.* 1. *Epidem. Sect.* 1. ſays of certain Patients who died: "They ſweated "indeed conſtantly, but not all over the Body." And a little after, in *Sect.* 2. he recounts the Signs by which burning Fevers are known to be mortal in the Beginning. He ſays, "The Patients ſweated "a little in the Forehead and Clavicles, but none "of them all over the Body." Thus the Author of *Prorrhet.* in *Lib.* 1. *Text.* 39. tells us, "That "Sweats, eſpecially on the Head, are bad Signs in "acute Diſeaſes." All Sweats therefore, which are not all over the Body, are bad, ſince they denote either Death, or the Length of the Diſeaſe. But *Hippocrates*, in *Prognoſt.* juſtly obſerv'd, "That "theſe Sweats are of all others the worſt, which "are cold, and appear about the Head, Face and "Neck, ſince theſe, in acute Diſorders, prognoſticate Death, and in milder Diſorders their "Length." No Obſervation is more juſt, than that made by *Galen*, in *Lib.* 2. *Prorrhet. Com.* 1. *Text.* 24. "That all Sweats appearing about the "Forehead, Neck, Thorax, or Clavicles, denote "either a Weakneſs of the retentive Faculty, or "a Redundance of Humours." The ſame *Galen*, in 1 *Prorrhet. Com.* 1. affirms, "That Sweats on "the ſuperior Parts are not good, becauſe they "denote, either that the retentive Faculty is languid, or that it has been overpower'd in the "Beginning of the Diſorder." Thoſe Sweats are alſo of all others the worſt, which appear on the

Head and ſuperior Parts in internal Suppurations, and a Phthiſis. Thus the Author of *Coac. Præſag. Lib.* 5. *Text.* 402. tells us, " That thoſe who have " internal Suppurations, in conſequence of a Pleuriſy " or Peripneumony, are afflicted with Heats, which " are gentle in the Day-time, but more vehement " in the Night; they have a very inconſiderable " Expectoration, and ſweat about the Neck and " Clavicles; their Eyes become hollow, and their " Cheeks red." In acute Fevers, ſuch Sweats prognoſticate Death, becauſe the Faculty is extinguiſh'd before it can concoct the Redundance of Humours. Thoſe Sweats alſo, which proceed from ſuch a Weakneſs of the retentive Faculty, that it cannot retain the Humours, prognoſticate a ſpeedy Death, which may be the more infallibly predicted, if they are cold. Sweats of this Kind were obſerved in *Pythio, Lib.* 3. *Epidem. Ægr.* 3. in the Woman who lay in the *Forum Mendacium* on the ſecond Day, *ibid. Ægr.* 12. *in Met. Lib.* 7. *Epidem. Text.* 47. in *Ariſtocrates ibid. Text.* 57. and in *Phærecides ibid. Text.* 91. juſt when they were at the Point of Death. But in milder Diſeaſes, when the Patient is ſtrong, ſuch Sweats prognoſticate the Length of the Diſorder, but not the Death of the Patient. This was the Caſe of the Patient who lay in the Garden of *Dealces*, in *Lib.* 3. *Epidem. Ægr.* 3. and who " on the fourth Day had a ſmall Diſcharge " of Blood from his left Noſtril, ſweated about the " Head and Clavicles, was ſeized with a Tumor " of the Spleen, and a Pain of the adjacent Thigh." Bad Sweats are alſo known, when the Patients have no other Evacuation, as alſo when they are render'd worſe by them; for when the Patients, inſtead of being reliev'd, are injur'd by their Sweats, it is one of thoſe critical Signs, which, inſtead of terminating the Diſeaſe, prognoſticates Death, as we are inform'd by *Galen*, in 1 *Prorrhet. Com.* 35.

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Hippocrates alſo, in 1 *Prognoſt.* tells us, That thoſe Sweats, which neither terminate the Fever, nor enable the Patient to bear it better, are bad, ſince they prognoſticate either the Length of the Diſeaſe, or Death of the Patient. The Author of *Prorrhet.* in *Lib.* 1. *Text.* 58. tells us, "That in acute Fevers "copious Sweats are uſeleſs, becauſe they do not "terminate the Diſorder;" and in 1 *Prorrhet. Text.* 7. we are told, "That an Heat of the Hy-"pochondria, after the Ceſſation of a Fever, is "bad, eſpecially if the Patient ſweats." *Galen*, in *Comment.* ſpeaks thus: "Small Sweats, which do "not appear all over the Body, are bad, becauſe "they do not remove the Heat of the Hypochon-"dria;" and afterwards, in *Prorrhet. Lib.* 2. *Text.* 68. we are told, "That 'tis a bad Sign when the "Patient is afflicted with a Watching and Sweat-"ing;" and *ibid. Text.* 67. 'tis ſaid, "That an "Heat of the Face during Sweat is bad;" ſince, if the Sweat was good, it would remove the Heat of the Face; whereas, by not producing that Effect, it denotes the Malignity of the Diſeaſe. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 56. tells us, "That "a Sweat happening in a Fever, without termi-"nating the Diſorder, is bad; ſince it denotes a "Protraction of the Diſeaſe, and a Redundance "of Humours." Such Sweats, in acute Diſorders, prognoſticate Death; and in thoſe of a mild Nature, their Protraction or Continuance. All thoſe Sweats are alſo bad, which are either preceded by, accompanied with, or ſucceeded by, bad Signs. Certain Death may be prognoſticated, when a Sweat, follow'd by bad Signs, is not of the critical Kind, but injures, inſtead of relieving, the Patient. Of theſe bad Signs after bad Sweats, *Hippocrates*, in 1 *Epidem. Sect.* 1. ſpeaks thus: "They ſweated all over the "Body, and their Extremities became ſo cold, "that they could hardly be reſtor'd to Heat."

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The Author of *Prorrhet. Lib.* 1. *Text.* 126. tells us, " That an Hemorrhage from the Nose, with " Sweat, and a Refrigeration of the Extremities, " is a bad and malignant Sign ;" and *ibid. Text.* 102. we are told, " That they who sweat in the Begin- " ning, have concocted Urine, are afflicted with " Heat, are refrigerated without a Crisis, become " quickly hot, or are torpid and comatous, are in " a bad and dangerous Situation." In *Coac. Præsag. Text.* 40. we are told, " That it is a bad Sign " to be seiz'd with small cold Sweats after Rigors." Sweats of this Kind were, by *Hippocrates*, observ'd in the Wife of *Dromedas*, *Lib.* 1. *Epidem. Ægr.* 11. in the Daughter of *Euryanactes*, in *Epidem. Lib.* 3. *Ægr.* 6. in the young Man who lay in the *Forum Mendacium*, *ibid. Ægr.* 8. in the Wife of *Theodorus*, *Lib.* 7. *Epidem. Text.* 27. in *Aristocrates*, *ibid. Text.* 52. and in the Wife of *Euxenius*, *ibid. Text.* 58. Of the Wife of *Dromedas*, in 1 *Epidem. Text.* 28. 'tis said, " That on the sixth Day she was seiz'd " with a Rigor, soon after became hot, and sweated " all over her Body : She was seiz'd with a Coldness " of the Extremities, a Delirium, a large and rare " Respiration ; and soon after Convulsions of her " Head." Concerning the Daughter of *Euryanactes*, in *Lib.* 3. *Epidem. Text.* 1. we are told, " That the " seventh Day after her Crisis, she was seiz'd with a Ri- " gor, became warm, and sweated on the eighth Day : " Then she was seiz'd with a slight Rigor ; after " which her Extremities were continually cold. " About the tenth Day after her Sweat she became " delirious, but soon after resumed the Use of her " Reason." Concerning the young Man who lay in the *Forum Mendacium*, 'tis said, " That on the " second Day all his Symptoms were augmented, " he had many Stools, did not sleep, was delirious, " and sweated a little. On the third he was restless, " and delirious, and his Extremities were cold and

" livid." With respect to the Wife of *Theodorus*, we are told, " That there was first on her Face a " small Sweat, which was afterwards copious all " over her Body. After this, the Fever seem'd to " remit, her Pulse was cold, and her temporal " Arteries had a strong Pulsation; her Breathing " was thick, she was seiz'd with a Delirium, and " all her Symptoms became worse." With respect to the Wife of *Euxenius*, in *Lib.* 7. *Epidem. Text.* 46. we are told, " That her Fever was diminish'd " by copious Sweats, she became cold, her Breath- " ing was inconstant, and she died." Hence 'tis obvious, that all those Sweats are bad, which are follow'd by bad Signs; as also those accompanied with bad Signs and Symptoms. Thus in *Coac. Præsag. Text.* 10. we are told, " That those Disorders, " in which Rigors and Sweats suddenly succeed " each other, are mortal;" and afterwards, in *Text.* 13. 'tis said, " That they who are often " seiz'd with Horrors, and sweat much, recover " with Difficulty;" and in *Text.* 53. 'tis said, " That Restlessness, with Sweat, is bad;" and in *Text.* 372. we are told, " That Eruptions of Blood, " on the opposite Side, are bad; when, for In- " stance, the Spleen being affected, the Blood is " discharg'd from the right Nostril: But these " Signs are still worse, when accompanied with " Sweat." And in *Text.* 35. we are told, " That " Fevers accompanied with a Coma, Restlessness, an " Aversion to Light, Watchings and Sweats, are " of the malignant Kind." *Aristocrates*, according to *Hippocrates*, in *Lib.* 7. *Epidem. Text.* 52. had these Signs accompanied with a Sweat: Those Sweats are also bad, which appear after bad and violent Symptoms. Thus in *Prorrhet. Lib.* 1. *Text.* 126. we are told, " That a scanty Sweat accompanied " with Refrigeration, appearing after an Hemor- " rhage from the Nose, is bad." This holds in every

every Evacuation, whether a profuſe Hemorrhage, ſcanty Drops of Blood in burning Fevers, bad Fluxes or Vomitings. Hence Sweat, ſucceeding bad Signs, is an unlucky Thing, if it does not remove or alleviate theſe Signs. This was the Caſe of the Wife of *Olympiada*, of whom *Hippocrates*, in *Epidem. Lib.* 7. *Text.* 49. tells us, " That her " Speech was not reſtor'd, nor ſhe herſelf in the " leaſt reliev'd; her Eyes were heavy, and her " Reſpiration, which was perform'd thro' her " Noſtrils, high: Her Colour was bad; and when " ſhe was about to die, ſhe had a Sweat about her " Feet and Legs." Theſe are the Prognoſtics from Sweats.

CHAP. VIII.

Of Preſages from Vomitings; and firſt, of ſalutary Vomitings.

AS the Humours are evacuated by Vomit, ſometimes in a beneficial, and ſometimes in a hurtful Manner; ſo 'tis certain, that the Events of Diſeaſes may be prognoſticated from Vomitings, ſince thoſe of the good Kind promiſe Recovery, and thoſe of the bad and ſymptomatical Kind the Length of the Diſeaſe, or Death. In acute Diſorders Vomiting is produc'd by the Irritation of the Stomach, either by the Redundance, or peccant Quality of the Humours contain'd in it; or by an Humour exſuding from the inflam'd adjacent Parts, as the Liver for Inſtance; and ſtimulating the Stomach to Excretion. The ſame Effect may, in the Beginning of a Diſeaſe, be produc'd by an univerſal Cacochymy, and in the Increaſe, by the Redundance or Malignity of the Humours. Such Vomitings are, by Phyſicians, call'd bad and ſymptomatical, becauſe they are rarely ſucceeded by Re-

covery; and when they are, 'tis not till after a long Time, nor without much Uneasiness, and Relapses. Besides, in acute Diseases, the Patients, either in the Height, or a little before it, after the Signs of Concoction appear, are seiz'd with a sudden and copious Vomiting, which is call'd a critical Vomiting, because it proceeds from Nature surmounting the Disease, and evacuating the Humours; and for that Reason produces a speedy and safe Crisis. The Signs of a future Vomiting are, by *Hippocrates*, in *3 Prognost. Text.* 35. enumerated in the following Manner: "If in a Fever, "which is not of the mortal Kind, there is a Pain "of the Head, a Dimness of the Sight, or a Pain "of the Stomach, a bilious Vomiting succeeds. "But if the Patient is seiz'd with a Rigor, and "the Parts below the Hypochondrium are cold, "the Vomiting will happen the sooner; but if he "should eat or drink at that Time, he will vomit "instantly." And in *Lib.* 1. *Epid. Sect.* 2. we are told, "That those who have an Heaviness of the "whole Head, a Pain of the Stomach, and Loath-"ing, soon after vomit a bilious and pituitous Mat-"ter." *Galen*, in *Lib. de Crisibus*, informs us, That the Signs of an approaching Vomiting are, a gnawing Sensation in the Mouth of the Stomach, a Pain of the Head, a Vertigo, Dimness of the Sight, an Agitation of the inferior Lip, a copious Discharge of thin Spit from the Mouth, and an Absence of the Signs of Hemorrhages, Sweats, Fluxes, and the menstrual or hemorrhoidal Discharges. But the Author of *Coac. Præsag. Text.* 142. gives us only the three following Signs of an approaching Vomiting: "They "who have a Loathing, a gnawing Pain at the "Mouth of the Stomach, and a copious Discharge "of Saliva, are seiz'd with a Vomiting." According to *Galen*, a frequent Spitting alone prognosticates a Vomiting in phrenitic Patients. But let this suffice for the Signs of Vomiting, since we have treated

more

more accurately of them in the preceding Book. We now come to consider what Vomitings are useful and salutary. *Hippocrates* then, in *Sect.* 4. *Aph.* 4 & 6. affirms, That in the Summer, and in slender Habits prone to vomit, it is proper to purge the Body by Vomiting, especially in Disorders above the Diaphragm. Thus in *Sect.* 4. *Aph.* 18. we are inform'd, " That Pains above the Diaphragm " indicate the Necessity of Vomiting, and those " below it, that of Purging." *Hippocrates*, in *Prognost. Text.* 38. tells us, " That the Vomiting is most " beneficial, the Matter of which is most mixed " with Phlegm and Bile, tho' it should not be " thick, nor very large in Quantity." *Galen*, in *Lib.* 4. *Aph.* affirms, That it is a good Sign when bilious Vomitings succeed a Rigor; because the Cause of a burning Fever being evacuated, the Disorder will be terminated. Thus all Vomitings are not perpetually good, but only those in which a critical Evacuation of bilious Humours happens. Not only bilious, but also pituitous Vomitings are good, if they happen critically; for as in pituitous Fevers an Evacuation of Phlegm is beneficial, so in those of the burning Kind, a Vomiting of Bile affords Relief. *Hippocrates*, in 6 *Epidem. Com.* 1. *Text.* 5. in Pains of the Kidneys commends the Vomiting of Phlegm, and of an æruginous Humour: *Galen*, in *Lib.* 3. *Aphor.* affirms, That æruginous Vomiting is beneficial in Convulsions. Thus he tells us, " That a certain Man in Vomiting was " seiz'd with Convulsions; and as soon as he threw " up an æruginous Matter, he was forthwith freed " both from his Fever and his Convulsions." *Hippocrates*, in *Lib. de Veteri Medicina*, expresses the Advantages of bilious Vomiting in the following Manner: " When there is a Redundance of yellow " Bile, Restlessness, Uneasiness, and Heats are " produc'd; but when the yellow Bile is seasonably

" evacuated, either ſpontaneouſly, or by Medicines, " both the Pain and Heat are forthwith remov'd." And a little after he ſubjoins: " The intenſe Pain " of the Viſcera and Breaſt, the Madneſs and De- " ſpair produc'd by an acrid and æruginous Bile, " are not remov'd, till ſuch a Bile is either evacu- " ated, or corrected by an Admixture of other " Fluids." Hence we infer, that all Vomitings are good, if they evacuate and diſcharge the Cauſes of Diſorders. We have already obſerv'd, that theſe are call'd critical, the Marks of which are, that they appear, after the Signs of Concoction, on the critical Days, and correſpond to the Idea of the Diſeaſe; and eſpecially, that they remove or diminiſh the Diſeaſe, and its Symptoms. Thus *Hippocrates*, in *Sect.* 1. *Aph.* 2. tells us, " That if in " ſpontaneous Purgings and Vomitings, the Matter, " which ought to be evacuated, is carried off, the " Patient is reliev'd; but if not, the contrary hap- " pens." With reſpect to the Marks of theſe critical Excretions, the Author of *Coac. Præſag. Text.* 77. tells us, " That thoſe who lie ſpeechleſs in con- " tinual Fevers with their Eyes ſhut, and ſometimes " winking, are preſerv'd, if they have an Hemor- " rhage from the Noſe, and a Vomiting; as alſo " they who recover their Speech, and return to them- " ſelves." Thoſe Vomitings are alſo ſalutary, which appear with other laudable Evacuations; ſuch as the bilious Vomiting in the Woman three Months gone with Child, mention'd in *Lib.* 1. *Epidem. Ægr.* 13. and whoſe Vomiting was on the fourteenth Day accompanied with a Sweat, by which ſhe had a perfect Criſis. But tho' theſe Vomitings, which appear without the Signs of Concoction, are good, and alleviate the Diſeaſe and its Symptoms; yet they indicate Relapſes, and only indicate Recovery in a long Time. This happen'd to the Wife of *Epicrates*, mention'd in *Epidem.* 1. *Ægr.* 13. who,

" On

" On the fifteenth Day, had a frequent Vomiting " of bilious, yellow Matter, ſweated, and was freed " from her Fever. But towards Night ſhe was " ſeiz'd with an acute Fever, and diſcharg'd a thick " Urine, with a groſs Sediment." Bad Vomitings alſo, ſuch as thoſe of the black or unmix'd Kind, when they appear in mild Diſeaſes, do not prognoſticate Death, but the Length of the Diſorder, and Relapſes. Vomitings of this Kind were, by *Hippocrates*, obſerv'd in the laſt-mention'd Woman, of whom he ſays, " About the twentieth Day, in " the Morning, ſhe was ſeiz'd with a Kind of Ri- " gor, became comatous, ſlept quietly, and vo- " mited a ſmall Quantity of bilious black Matter." This Woman only had a perfect Criſis, on the fortieth Day, by means of a bilious Vomiting, and a Flux of the Belly. In like manner *Cleonactides*, who was only reſtored to Health on the eightieth Day, had on the 24th bad Vomitings. Of this Patient *Hippocrates*, in *Lib.* 1. *Epidem. Ægr.* 6. tells us, " That about the twenty-fourth Day a Pain " ſeized the Extremities of his Hands; he had fre- " quent Vomitings of a bilious and yellow, and " ſoon after of a virulent Matter, by which all his " Symptoms were diminiſhed." As theſe Vomitings ſhewed ſome Signs of the Concoction of Urine, which was thin, and of a laudable Colour; and which, according to *Galen*, in *Lib.* 3. *Epidem. Com.* 3. *Text.* 5. when mentioning the Caſe of the young Woman of *Abdera*, is a good Sign in thoſe who abound with Humours: And as they alleviated the Diſeaſe, and its Symptoms, they were juſtly to be looked upon as ſalutary, tho' they only produced an imperfect Criſis. Hence ſuch Vomitings only prognoſticate a ſlow Recovery. Thus in acute Diſeaſes all Vomitings, which alleviate the Diſorder, and render the Patient able to bear it more eaſily, are of the ſalutary Kind. But Vomitings naturally

bad, ſuch as the unmixed, the æruginous, the black, the fetid, the virulent, the parti-coloured, and ſuch as are ſmall in Quantity, appearing in mild Diſorders, or when the Diſeaſe is crude, prognoſticate either the Length of the Diſorder, or Death, or Pains and Relapſes. Thus *Hippocrates*, in *Sect.* 6. *Aph.* 15. tells us, " That a ſpontaneous Vomiting ſuper-" vening a long Flux of the Belly, terminates the " Diſorder." And in *Lib.* 1. *Epidem. Sect.* 2. *Hippocrates* affirms, That bilious Vomitings are good Signs in Women, whoſe menſtrual Diſcharges are too ſcanty.

CHAP. IX.

Of bad Vomitings, and ſuch as prognoſticate Death.

BAD Vomitings, and ſuch as prognoſticate Death, appear in the Beginning, or a little after the Beginning of the Diſeaſe, when none, or very obſcure Signs of Concoction, are to be obſerved; for, at that time, Nature evacuates nothing duly, according to that Maxim in *Epidem. Lib.* 2. *Sect.* 1. " Salutary critical Signs do not appear in " the Beginning." Hence the Nature of bad Vomitings is to be known from their appearing in the Beginning of the Diſeaſe, and with the Signs of Crudity.

Secondly, If the Quantity of the Matter thrown up is ſo immoderate, as to impair the Strength, the Evacuation is bad; and copious Vomitings, which afford no Relief in violent Diſeaſes, prognoſticate Death, eſpecially if they appear with other fatal Signs. But, above all, if they are naturally of a malignant Kind, ſuch as the porracious, livid, æruginous, black, parti-coloured, virulent, fetid and unmixed: But of theſe we ſhall treat ſeparately. Vomitings of this Kind were obſerved, by *Hippocrates*,

crates, in the phrenitic Patient mentioned in *Lib.* 3. *Epidem. Ægr.* 4. in the Woman who lay in the *Forum Mendacium*, *ibid. Ægr.* 12. in the Son of *Hegotorida*, in *Lib.* 7. *Epidem. Text.* 61. before their Deaths. According to *Galen*, in 2 *Prorrhet. Text.* 47. The vomiting a ſmall and inconſiderable Quantity in acute Diſorders, is an abſolutely bad Sign; for no critical Evacuations ought to be ſmall, ſince Excretions, when copious, denote the Redundance of the Humours; but, when ſcanty, indicate the Weakneſs of Nature which cannot expel the ſuperfluous Humours. Hence 'tis obvious, that ſcanty Vomitings do not produce a ſalutary Criſis, but always lay a Foundation for a dubious Prognoſtic, and are generally mortal Signs, eſpecially if they are naturally of a bad Kind, and, inſtead of relieving, injure the Patient, and render him worſe. Unmixed Vomitings are alſo extremely bad in acute Diſorders, becauſe an unmixed Humour is not only crude, but incapable of Concoction. Thus *Hippocrates*, in *Prognoſt.* calls every Humour free from Mixture, ακρητον, that is, incapable of producing a Criſis, ſince all Humours excreted are fervid and crude, which are not diluted with their proper Serum. The Generation of ſuch Humours is produced, either by the Fault or Diſorder of ſome particular Part, or by the Diſſipation of the aqueous and ſerous Parts of the Humours, by means of the febrile Heat. Crude Vomitings therefore, in acute Fevers, indicate, that there is an intenſe, internal Heat, which is generally invincible by Nature. Such Vomitings prognoſticate Death, when they appear with other bad Signs. Thus the Author of *Prorrhet.* in *Lib.* 1. *Text.* 62. tells us, "That unmixed Vomitings, attended with Uneaſineſs, are bad;" and *Hippocrates*, in *Prognoſt.* tells us, "That the freer Vomitings are from Mixture, the worſe they are found to be;" and in the ſame Part he ſays, "If

"the

" the Matter vomited is porracious, livid or black, " it is a bad Sign ; but if the Matter is of all these " Colours together, it is a mortal Sign, and nothing " more certainly denotes a speedy Death, than when " the Matter is at once livid, and highly fetid." Parti-coloured Vomitings are therefore excessively bad, tho' Matter of the porracious, æruginous, livid, black, or fetid Kinds, may sometimes be critically evacuated, tho' this only happens when the Disease is concocted, that is, in its Height or Decline ; and such Vomitings either totally remove the Fever, or alleviate its Symptoms. Critical Evacuations however of this Kind rarely happen. Hence, as we have already observed, such Vomitings are certain Prognostics of Death in violent continual Fevers, before the Signs of Concoction appear. Parti-coloured Vomitings are also, according to *Galen*, excessively bad Signs, since they denote various internal Disorders. Thus the Author of *Prorrhet. Lib.* 1. *Text.* 60. tells us, " That parti-coloured " Vomitings are bad, especially when they appear " near each other ;" that is, according to *Galen*, when they happen soon after each other. Virulent or æruginous Vomitings are also mortal Signs in acute Disorders, especially in phrenitic Patients, because they denote, that the Brain labours under an Inflammation produced by a hot Bile, which always proves mortal. Thus *Hippocrates*, in 1 *Epidem. Sect.* 2. tells us, " That if phrenitic Patients are " seized with Convulsions, and vomit a virulent " Matter, they die suddenly." A Vomiting of this Kind happened on the first Day, in the phrenitic Patient mentioned in *Epidem. Lib.* 3. *Ægr.* 4. of whom it is said, " That on the first Day he was phrenitic, vomited a thin, copious, and virulent Matter, and was seized with a Fever, accompanied with an Horror. Æruginous Vomitings, which we may also call virulent, are certain Signs of Death, when

when they appear with other mortal Symptoms. Vomitings of this Kind, accompanied with Head-achs, Watchings and Deafness, which are Signs of an Inflammation of the Head, prognosticate a violent Delirium. Thus the Author of *Prorrhet. Lib.* 1. *Text.* 10. tells us, " That those, who in violent " Pains of the Head, have æruginous Vomitings, " Watchings, and Deafness, are soon after seized " with a violent Delirium." Hence we infer, that in phrenitic Patients such Vomitings denote three Things: First, the Celerity, or quick Progress of the fatal Disorder. Secondly, a violent Delirium, with Distraction, since æruginous Humours excite raging Madness; and thirdly, Death with Convulsions, since, as we have elsewhere observed, it is peculiar to Madnesses of this Kind, arising from excessive Dryness produced by intense Heat, to terminate in Tremors and Convulsions. No less dangerous are fetid Vomitings, which are infallible Prognostics of Death, if they smell very rank and high. Thus *Hippocrates*, in *Prognost.* tells us, " That " livid Vomitings of a fetid Smell prognosticate " a speedy Death; and all putrid and fetid Smells " in Vomitings of every Kind are bad." The Woman mentioned in *Epidem. Lib.* 3. *Ægr.* 12. who lay in the *Forum Mendacium*, before her Death, had black and fetid Vomitings. Bilious, yellow, saffron-colour'd, porracious, and all other Vomitings, which either accompany or succeed other bad Signs, are bad; as also those, which, instead of relieving the Patient, render him worse, since they at best lay a Foundation for a dubious Prognostic, and are infallible Forerunners of Death, if they are naturally malignant. Thus the Author of *Prorrhet.* in *Lib.* 1. *Text.* 62. tells us, " That unmixed Vomit- " ings, accompanied with great Uneasiness, are " bad;" and *ibid. Text.* 71. 'tis said, " That those, " who vomit a black Matter, loath Aliments, are

" afflicted

" afflicted with a Delirium, and a ſmall Pain about " the Pubes, and whoſe Eyes are ſtaring or ſhut, " ought not to be purged, ſince ſuch a Practice is " hurtful to them ;" and *ibid. Text.* 79. we are told, " That ſcanty and bilious Vomitings are bad, " eſpecially if the Patient is afflicted with Watch- " ing, and a Dropping of Blood from the Noſe." A Vomiting of this Kind was, by *Hippocrates*, obſerved in the Woman who lay in the *Forum Mendacium*, of whom, in *Lib.* 3. *Epidem. Ægr.* 12. 'tis ſaid, " On the twelfth Day ſhe vomited a large " Quantity of black, fetid Matter, was afflicted " with a violent Hiccup and intenſe Thirſt. On " the thirteenth ſhe vomited a black and virulent " Matter, was ſeized with a Rigor, and about Noon " became ſpeechleſs." All thoſe Vomitings are alſo bad, which afford no Relief; and ſtill worſe are thoſe, which render the Patients worſe, tho' they ſhould not be in their own Natures of a malignant Kind. Thus concerning the laſt-mentioned Woman, 'tis ſaid, " On the eighth Day, about Noon, " her Heat returned, ſhe was afflicted with Thirſt, " became comatous, was ſeized with a Nauſea, vo- " mited a ſmall Quantity of bilious, yellow Matter " at Night ; ſhe was very uneaſy, reſted none, " and involuntarily diſcharged a large Quantity of " Urine :" For, by the bilious Vomiting, as alſo that on the ninth Day, if they had been good, ſhe muſt have reſted, and had her Condition rendered eaſier : On the tenth her Fever was augmented, and accompanied with bad Signs. After a virulent and bilious Vomiting on the eleventh Day, ſhe was ſeized with a Rigor and Coldneſs of the Extremities ; after which, ſhe had a cold Sweat, but paſſed the Night in great Uneaſineſs, tho' ſhe vomited much. All theſe Vomitings were mortal Signs, not only becauſe they appeared in a violent Diſeaſe, and in Conjunction with other bad Signs ; but alſo

becauſe they rendered the Patient worſe, which is the peculiar Sign of all bad Evacuations. Bilious Vomitings are alſo bad in Perſons wounded in the Head. Thus *Hippocrates*, in *Sect.* 6. *Aph.* 50. tells us, " That Wounds of the Brain muſt neceſſarily " be ſucceeded by a Fever, and bilious Vomiting;" and in *Sect.* 7. *Aph.* 10. 'tis ſaid, " That after Vo- " mitings ariſing from a Diſorder of the Ilium, an " Hiccup, Convulſions or Delirium, are bad." But *Galen*, in his Comment on this Paſſage, ſays, " That " in the iliac Paſſion nothing deſcends thro' the " Inteſtines, which is the peculiar Sign of this Diſ- " order, tho' Vomiting is not always preſent, but " only when the Diſorder is mortal; in which Caſe " the Fæces aſcend, and the Patients are afflicted " with an Hiccup." And in *Lib.* 6. *de Locis af- fectis*, *Cap.* 2. *Hippocrates* tells us, " That none who " vomit their Fæces can be preſerved." In acute Diſorders therefore, immoderate, ſcanty, yellow, porracious, æruginous, livid, black, fetid, unmixed and parti-coloured Vomitings are bad, ſince, when they appear in the Beginning, before the Signs of Concoction, they generally prognoſticate Death: But if the Diſorder is violent, or if other bad Signs precede, accompany, or follow them, they are certain Indications of Death, eſpecially if, inſtead of relieving the Patient, they render him worſe.

CHAP. X.

Of Stools; *and firſt, of thoſe which prognoſticate Recovery.*

AMONG the ſeveral Circumſtances from which Life and Death are prognoſticated, Stools are none of the leaſt conſiderable; and, in handling this Subject, we ſhall firſt conſider thoſe which are ſaid to be good, and from which the Phyſician con-

cludes

cludes the probable Safety and Recovery of the Patient. Whether the Nature of Stools in general be good or bad, may be diſcovered, firſt, from their Degree of Concoction, or Crudity. Secondly, from the particular Times in which they appear. Thirdly, from their Subſtance. Fourthly, from the large and minute Quantity in which they are diſcharged. Fifthly, from the Time during which they continue, or the Time when they ceaſe. Sixthly, from the Advantage with which they are attended, and the Eaſe and Freedom from Pain with which the Patient diſcharges them. And, Seventhly and laſtly, from the Train of good or bad Signs, from which Prognoſtics from Stools derive their Certainty. But to return: Stools of the good and ſalutary Kind may indicate Health in two manners; either with reſpect to their due Concoction, in which Caſe they indicate, not only the due State of the Stomach and Inteſtines, but alſo of the adjacent Parts, ſuch as the Liver and Spleen; for *Galen* determined, that thoſe Stools denoted the laudable and ſalutary State of the Stomach and Inteſtines, which, according to *Hippocrates*, in *Prognoſt.* were ſoft, of a due Conſiſtence, diſcharged at the particular Time generally obſerved by Nature in a State of Health, and whoſe Quantity bears a due Proportion to that of the Aliments taken:" Another manner, in which good Stools indicate Health, is with reſpect to the Defluxion of Humours from the Viſcera into the Stomach and Inteſtines; for *Galen* affirms, that good Stools not only indicate the due and natural State of the Stomach and Inteſtines, but are alſo a Sign, that there is no Defluxion of Humours into theſe Parts from the Liver or Spleen; for, when there is a Defluxion of this Kind, not only the Colour, which is the Sign of a due Concoction, but alſo the Conſiſtence of the Stools is vitiated. In both theſe manners Phyſicians form

Prognoſtics from Stools; firſt, in Diſorders of the Stomach and Inteſtines, the due and natural State of which, according to *Galen*, in the ſeventh Chapter of his firſt Book *de Criſibus*, is ſignified by Stools, which are ſoft, of a due Conſiſtence, diſcharged at the Time generally obſerved by Nature in a State of Health, and in a Quantity bearing a due Proportion to that of the Aliments; and, as the ſame Author has added, laudable Stools ought to be of a brown Colour, and not very fetid. But the Stools, which want all or any of theſe Marks, are bad; ſuch, for Inſtance, as are hard, rough, too thin, of too high a Colour, diſcharged in a Quantity too large, or too ſcanty, in Proportion to the Aliments, of an unequal Conſiſtence, fetid, frothy, or not evacuated at the Time obſerved by Nature in a State of Health. But, when Patients are about to recover, the Stools are changed from theſe Conditions to that laudable State, which we call Concoction. Hence *Hippocrates*, in his Prognoſtics, juſtly affirmed, "That the Stools became of a thicker "Conſiſtence, when the Diſeaſe was about to be "determined." And, in the fourteenth Aphoriſm of his ſecond Section, he aſſerts, "That, in Fluxes "of the Belly, Changes of the Excrements are "good, unleſs they change for the worſe." But we far more certainly and infallibly prognoſticate the Events of Diſeaſes by the Evacuation of thoſe Humours, which fall upon the Inteſtines. The Diſorders hence ariſing, *Hippocrates* calls Abſceſſes, Dyſenteries, Teneſmi, Fluxes, Diſturbances of the Belly. Concerning Patients labouring under theſe Indiſpoſitions, in the firſt Book of his Epidemics, he tells us, "That many had their Bellies diſturbed, "but without any conſiderable Uneaſineſs, and in "ſuch a manner, as to create them no great "Trouble." And afterwards he tells us, "That "ſome were, on the ſixth Day, ſeized with the

"Jaundice;

" Jaundice ; but that these were, in some measure, " relieved by an increased Discharge of the Urine, " and the Excrements." With respect to Dysenteries, he afterwards uses these Words : " But such " Patients, as were pretty far advanced in Years, " were either seized with a Jaundice, Disturbances " of the Belly, or a Dysentery, which was the " Case of *Bion*, who lay sick in the House of *Sile-* " *nus* ; but that many others, whose Diseases were " determined by a Crisis, were seized with a Dy- " sentery, such as *Zenophanes* and *Critias*." With respect to some, who recovered in the pestilential Constitution, he uses the following Words : " But, " in this pestilential State, such as escaped, owed " their Safety to these four Circumstances : Either " there was a plentiful Discharge of Blood from " their Nose ; or a copious Evacuation of Urine, " in which there was a large Quantity of a laudable " Sediment ; or turbid and bilious Excrements were " evacuated in the Beginning of the Disorder ; or " the Patients were seized with a Dysentery :" So that, in many Cases, Diseases may happen to be determined by Disturbances of the Belly, by Discharges of pituitous and bilious Excrements, and by Dysenteries. With respect to *Clazomenius*, *Hippocrates*, in the first Book of his Epidemics, uses the following Words : " On the thirtieth Day, a large " Quantity of aqueous Excrements, like those ge- " nerally evacuated in a Dysentery, were discharg- " ed." With respect to the Patient in the Garden of *Dealces*, in the third Book of his Epidemics, *Patient* 3. he informs us, " That, on the fortieth Day, " he went very frequently to Stool, voided a pitui- " tous and white Matter, a profuse Sweat at the same " time appearing over all his Body." In the same Book of his Epidemics, *Patient* 9. he tells us of one *Heropytus*, " That, about the hundredth Day, he " began to void many bilious Stools, which continued

" for a considerable Time, till at last he became dysen-
" terical." But we know, that these, and other Stools, are of the laudable and critical Kind, when, with the Signs of a manifest Concoction, they begin to appear on the Critical Day, when the Disease is at its Height; or when they are liquid, of a yellow Saffron-colour, brown, livid, or blackish. But, in the Beginning of the Disease, such Stools, appearing without the Signs of Concoction, prove critical and salutary. *Galen*, in his *Comment.* upon the twenty-first *Aphor. of Sect.* 4. informs us, That, during a certain long Plague, he observed liquid Stools, which were first yellow, then brown, afterwards black, and, as it were, resembling the Fæces of Blood, not only in those who were on the Brink of Death, but also in those who were upon the Recovery. In these latter, he says, That such Stools followed the Height of the Disease, and were so many Efforts of Nature, to free herself from a superfluous Load; whereas, in such as died, those Stools appeared either in the Beginning, or Increase of the Disorder. The same Author, in his *Comment* upon the following Aphorism of the same Section, says as follows: " When,
" therefore, after the Concoction of the Disease, any
" peccant Humour is evacuated, then the Body is
" purged, as it were, by Nature; and for this Rea-
" son black Bile, and every other Humour of the
" like Kind, portend a salutary Evacuation, when
" the Signs of Concoction appear in the Progress of
" the Disease. But, if any such Humour should be
" discharged without the Signs of Concoction, the
" Death of the Patient is thereby prognosticated.
" Humours, therefore, of any Colour, however
" prejudicial they should seem to be in that Respect,
" nevertheless prognosticate a salutary Termination
" of Diseases, provided they are evacuated with the
" Signs of Concoction in the Height of the Disease,
" and on the Critical Days." This Doctrine *Galen*

borrowed from *Hippocrates*, who, in the forty-ſeventh Aphoriſm of the fourth Section, tells us, " That, in " Fevers, which are not of the intermitting Kind, " ſpitting or vomiting Matter, which is either livid, " bloody, fetid, or bilious, is a bad Sign; but " that, if ſuch a Matter is duly evacuated, either " by Stool or Urine, it is a good Sign." The Author of the *Coacæ Prænotiones*, 183, tells us, " That thoſe, who, labouring under a Coma, be- " come deaf, have a Diſcharge of brown Excre- " ments about the Criſis, by which they are reliev'd." Phyſicians are alſo enabled to form Prognoſtics from the Quantity of the Stools, and the Time during which they continue. *Hippocrates* therefore, in the firſt Book of his Epidemics, writes, That many were affected with Dyſenteries, and diſturbed Bellies, by which their Diſorders were critically determined. Thus, concerning *Heropytus*, *in Epidem. L.* 3. whoſe Diſorder was determined in a ſalutary Manner, *Hippocrates* obſerves, That, about the hundredth Day, he began to have many bilious Stools; that they continued in the Manner of a Dyſentery for a conſiderable Time, and were accompanied with a Pain, by which Means all his other Symptoms were alleviated. Beſides, I myſelf have known ſeveral Patients, who have been preſerved by bilious, porraceous and Saffron-coloured Stools, together with a Diſcharge of well-concocted Urine, made by little and little, and continued for a conſiderable Number of Days. Stools of this Kind, in Diſeaſes which are to terminate well, and thoſe in which no fatal Signs appear, are, for the moſt Part, accompanied with a ſalutary Hæmorrhage, copious Sweats, or ſome other Sign of a like Nature. *Hippocrates*, in the ſecond Aphoriſm of his firſt Section, lays down two Signs, by which a Phyſician may know when Stools prove a ſalutary and uſeful Evacuation, and when not; which are, when the Patients not only bear them

with

with Eaſe, but are alſo relieved by them. Hence the beſt and moſt ſalutary Stools either put an entire Termination to Fevers, and their Symptoms, or at leaſt alleviate and abate them. With Reſpect to this Subject, *Hippocrates*, in the 28th *Aphor.* of *Sect.* iv. affirms, " That, in Fevers, an Evacuation of bilious " Excrements is removed by a ſupervening Deaf- " neſs, which, in its Turn, is removed by a Diſ- " charge of bilious Excrements." In the ſeventeenth Aphoriſm of the ſixth Section, he informs us, *That, in an Ophthalmia, a ſupervening Looſeneſs is a Circumſtance of a lucky and ſalutary Nature.* In the forty-eighth Aphoriſm of the ſame Section, he affirms, *That a Dyſentery, ſeizing thoſe who labour under Obſtructions of the Spleen, is a good Circumſtance.* In the 29th *Aphor.* of *Sect.* 7. he alſo aſſerts, *That a violent Diarrhæa happening to a Perſon afflicted with a Leucophlegmatia, removes the Diſeaſe.* What has been already ſaid, is ſufficient for diſcovering and determining what Stools are of the good and ſalutary Kind.

CHAP. XI.

Of bad STOOLS, *and ſuch as prognoſticate the Death of the Patient.*

BUT there are others of a fatal and pernicious Nature, and ſuch as prognoſticate the Death of the Patient. Theſe are known either from their Subſtance, their Quantity, their Colour, their Smell, the Manner in which they are diſcharged, the Time of their Appearance, the Changes they undergo, the Signs which either precede, accompany, or follow them, the Degrees of Eaſe with which they are evacuated, and the Advantages they procure to the Patient. Stools then of the bad Kind differ very conſpicuouſly from each other with reſpect to their Subſtance, ſince ſome are hard, ſome rough, ſome liquid, ſome viſcid, ſome aqueous, ſome pinguious, ſome frothy, ſome mixed with a certain Ichor, ſome

unmixed, and ſome what we call of the colliquative Kind. With Reſpect to Quantity, theſe Stools vary no leſs conſiderably, ſince they ſometimes flow immoderately, and at other times in a ſmaller Quantity; ſometimes ceaſe, and at other times are totally ſuppreſſed. With reſpect to Colour, ſome are white, ſome bilious, ſome yellow, ſome of a Saffron-colour, ſome brown, ſome green, ſome porraceous, ſome livid, ſome bloody, ſome black, and ſome ting'd with various Colours. Stools alſo vary with reſpect to the Manner in which they are evacuated, ſince there is one Manner of Evacuation in a Lientery, another in a Diarrhæa, another in a Dyſentery, and a fourth in a Teneſmus. Stools alſo differ with reſpect to the Time in which they appear; ſince ſome are diſcharged in the Beginning of the Diſeaſe, without any manifeſt Signs of Concoction, and others in the Increaſe of the Diſeaſe. With reſpect to the Alterations they undergo, they may be changed for the worſe, either as to their Subſtance, their Quantity, their Colour, or their Smell. Such Stools as prognoſticate Death, may alſo be diſcovered from their preceding, concomitant, and ſubſequent bad Signs. And, laſtly, with reſpect to the Eaſe with which Stools are voided; thoſe are accounted bad, which are evacuated with Difficulty or Pain, which afford no Relief, or which render the Patient worſe. That we may, therefore, be able to prognoſticate from Stools with the greater Certainty, I judg'd it expedient accurately to inquire into theſe Differences, beginning with thoſe Stools which are hard or rough, ſoft or liquid. With reſpect to hard Stools, the Author of the *Prorrhetics*, in 1 *Prorr.* 41. uſes theſe Words: "When the Belly is coſtive, if a ſmall "Quantity of black Excrements, as it were, like "Goats Tricklings, are diſcharged; and if, at the "ſame Time, there is an Eruption of Blood from "the Noſtrils, this is a bad Sign." *Galen* affirms,

That

That the σπυραθῶδη, or ſpiral Excrements like Goats Tricklings, are produced by the Length of their Retention, and the exceſſive Heat of the Parts; and if theſe Excrements ſhould be of a blackiſh Colour, they denote a Heat and Burning about the Centre of the Body, which is a Sign of a malignant Diſeaſe; and, if this Diſeaſe is violent, and accompanied with other bad Signs, theſe Excrements certainly prognoſticate the Death of the Patient. Liquid Stools ſometimes proceed from a moiſt Conſtitution, a State of Childhood, a wet State of the Weather, humid Aliments, or Crudities of the Stomach; or liquid Stools are produced, when moiſt Aliments are not conveyed from the Stomach through the Lacteals; or when ſome Subſtance, of a fluid Nature, falls from the Liver or Spleen into the Inteſtines; or when the Liver, or the Spleen, or the whole Body, is purged by the Liver. Among liquid Stools, *Hippocrates in Prognoſt.* pronounces thoſe of the aqueous Kind bad; becauſe, as *Galen* ſays, they are a Sign of Crudities. Stools of this Nature are perpetually bad, and prognoſticate Death in violent and bilious Diſorders, if, at the ſame Time, a due Quantity of good and laudable Urine is not diſcharged; whereas, in milder and more benign Diſtempers, which are accompanied with no fatal Symptoms, they only denote a Superfluity of crude Humours; for the Correction and Alteration of which, Nature requires a long Time. But, as *Galen* informs us, pinguious Stools are diſcharged in acute Diſeaſes, when the Fat is melted down by the intenſe Heat of the Parts; but when theſe Stools are alſo viſcid, they import, that not only the Fat, but alſo the ſolid Parts of the Animal, are colliquated. When this is the Caſe, Stools, which are pinguious, viſcid, white, ſmall in Quantity, and highly fetid, are diſcharged. But they may be diſtinguiſhed from ſuch as are diſcharged under theſe Appearances, in conſequence of eating

any particular Species of Aliments; for these latter are more copious, and not always white. And according to *Galen*, a fetid Smell is a Sign of Colliquation. With respect to Stools of this Kind, *Hippocrates*, in his *Prognostics*, informs us, "That such as "are small in Quantity, glutinous, white, of a pale "Saffron-colour, and smooth, are bad." These must perpetually, and in the very Nature of the Thing, be bad; since a Wasting of the solid Parts of the Body, and a Colliquation of the Fat, are fatal Circumstances, which, in acute Disorders, indicate an intense Heat, and certain Death, if the Disease is very violent, or accompanied with bad Signs. But, in milder Diseases, these Stools, instead of the Death of the Patient, prognosticate the Portraction of the Disease. Thus, in respect to the Patient in the Garden of *Dealces*, *Hippocrates*, in the third Book of his *Epidemics*, informs us, "That, on the sixth Day, his "Stools were black, pinguious, frothy, viscid, and "fetid:" And the Disease of this Patient was only determined on the fortieth Day. But the Stools, in this Case, were not the Effects of a Colliquation of the solid Parts, but of the Fat, and of the superfluous, putrified, and viscid Humours. But such Stools as are produced by a Colliquation and Wasting of the Solids, are absolutely fatal, and are discharged pure and unmixed. Thus, with respect to *Silenus*, *Hippocrates*, in the first Book of his *Epidemics*, informs us, "That, on the fifth Day, his Stools were unmix'd, "bilious, smooth, and highly pinguious." Unmix'd Stools are also justly to be condemned in acute Diseases; because, according to *Galen*, they indicate an intense internal Heat, by which the ichorous Parts of the Humours are exhausted and consumed. Thus the Author of the *Prorrhetics* justly asserted, "That "such Stools as became pure and unmixed, height-"en'd the Disorder;" and, according to *Galen*, these rendered it worse. Such were those of *Silenus*,

Epidem.

Epidem. 1. *Patient.* 2. on the fifth Day; those of *Phylinus*'s Wife, *Epidem.* 1. *Patient.* 4. on the sixth; those of *Euryanactes*'s Daughter, *Epidem.* 3. *Patient.* 6. on the twelfth; those of *Hermoptolemus*'s Wife, *Epidem.* 7. on the fifth; those of *Parius*, *Epidem.* 3. *Patient.* 1. on the seventh; those of *Pythion*, *Ibid. Patient.* 3. and others; the Histories of whose Diseases are to be found in the *Epidemics* of *Hippocrates.*

Frothy Stools are in like manner condemn'd, because they either indicate an intense Heat, by which the Fæces contract a Froth, like that produced on a Fluid boiling in any Vessel, or some flatulent Principle, mixed with the Humours, and resembling that Foam of the Sea produced by tempestuous Winds. The former of these Stools are the Effects of a Heat, melting down the Body; whereas the latter are produced by an unequal Perturbation. Hence *Hippocrates*, 2 *Prorrhet.* justly pronounces highly frothy Stools bad, because they either denote a Colliquation, or an Inequality. But those are worst, which indicate an intense colliquating Heat; and this Species may be known from the acute Fever, and the intense Heat of the Excrements themselves, which are frothy and unmix'd. Thus, in the first Book of the *Prorrhet.* 21. we are told, "That, in "bilious and unmixed Stools, frothy Efflorescences "are a bad Sign." In the same Book, 50. it is asserted, "That Stools, becoming frothy, and un-"mixed, heighten the Disorder;" or, as *Galen* expresses himself, "render it worse." In the same Book also, 53, frothy Stools are said to be bad in acute and bilious Disorders. In the *Coacæ Prænotiones*, 602, we are informed, "That, in acute Di-"stempers, frothy and highly bilious Stools are bad." And afterwards, 613, we are told, "That Stools, "which become frothy and unmix'd, increase and "heighten the Disease." Those Stools also, which

are rendered frothy by an Admixture of a flatulent Principle, are bad, becauſe they indicate a Crudity in the Excrements.

Stools either immoderately large, or preternaturally ſmall, in Quantity, are alſo to be condemn'd. The former impair the Strength, and weaken Nature. Thus, in his *Prognoſtics*, *Hippocrates* uſes theſe Words: " But Stools, too often diſcharged, " and in too large Quantities, endanger Faintings." The Author of the *Coacæ Prænotiones*, 609, informs us, " That liquid Stools, diſcharged in ſmall Quan- " tities, and frequently, are bad; partly becauſe " they induce frequent Watchings, and partly be- " cauſe they impair the Strength." Thus alſo, in the fourth *Aphoriſm* of the fifth *Section*, we are told, " That Convulſions, or a Hiccough, brought on " by immoderate purging, are bad."

Stools diſcharged in too ſmall Quantities are alſo bad, both becauſe they are inſufficient for removing the Cauſe of the Diſeaſe, and becauſe they indicate a Superfluity of Humours, which, in a violent Diſorder, generally prove fatal; or becauſe they import, that the vital Powers are inſufficient to expel the noxious Humours, notwithſtanding their Efforts for that Purpoſe. This Circumſtance *Hippocrates* obſerved in the firſt peſtilential Conſtitution; with Reſpect to which, in the firſt Book of his *Epidemics*, he ſays, " Theſe Symptoms were ſucceeded by Stools, " which were either greater than the Patients could " bear, or too ſmall to produce any happy Effects; " for which Reaſon the former Symptoms imme- " diately returned, and were heighten'd." Thoſe Evacuations by Stool, which ceaſe as ſoon as they are begun, are bad, and, in acute Diſorders, fatal. Thus *Hippocrates*, in the firſt Book of his Epidemics, tells " us, That thoſe Patients, whoſe Bodies were ſoluble, " had the Misfortune to have their Evacuations by " Stool ſuppreſs'd in a malignant Manner." And,

when enumerating thoſe Symptoms, and Signs of burning Fevers, which, in the Beginning, prognoſticate the Death of the Patient, he adds, " their " Evacuations by Stool were ſtopt." Hence it is by no means ſafe to ſuppreſs Diarrhæas and Dyſenteries; ſince, by this means, the noxious Humours are determin'd to other Parts, induce conſiderable Injuries, and, in acute Diſorders, Death.

We know Stools of a bad Kind not only from their Quantity, but alſo from their Colour. The white, thin, the bilious, the yellow, the Saffron-coloured, or thoſe reſembling the Yolks of Eggs, the red, the bloody, the aqueous, the green, the æruginous, the livid, the black, and thoſe diverſify'd with a Variety of Colours, are all bad in acute Diſorders, unleſs critically diſcharged. White Stools are either the Effects of the Aliments taken, ſuch as Bread alone, Milk, Ptiſan, Lupines, Alica, Almonds, and other Subſtances; or, as *Galen* informs us, in 1 *Prorrhet. Comment.* 13. and in 2 *Prognoſt. Comment.* 17 and 19. they are produced when the Bile is not convey'd to the Inteſtines, either on Account of an Obſtruction of the Biliary Duct, as in thoſe affected with the Jaundice; or in Conſequence of its not being ſecreted from the Maſs of Blood, by the Glands of the Liver; or laſtly, white Stools are produced by a Colliquation of the ſoft and recent Fat. But Stools of this Kind are ſmall in Quantity, viſcid, and highly fetid; and all of them, except ſuch as are white, in Conſequence of eating ſome Sorts of Aliments, are highly condemn'd in acute Diſeaſes, and more eſpecially ſuch as are white, in conſequence of an inflam'd Brain. With reſpect to which, *Hippocrates*, in the firſt Book of his *Prorrhetics*, 13, uſes the following Words: " In Phre- " netic Patients white Stools are bad, as is plain from " the Caſe of *Archecrates*." And in the ſame Book, 53, we are told, " That, in acute and bilious Diſ-

" orders,

" orders, Stools which are white, frothy, and bi-
" lious, only on the Surface, are bad." *Hippocrates*, in his *Coacæ Prænotiones*, 36, tells us, " That
" thoſe who are ſeverely affected with the Jaundice,
" diſcharge white Stools, they die." This happens on Account of a Retention of the Bile in the Blood; whence an Inflammation of the Brain, or Liver, which is a fatal Circumſtance, becauſe the Congeſtion of Humours to theſe Viſcera, is productive of the worſt of Conſequences. We have already obſerved, that ſuch Stools as are white, ſmall in Quantity, viſcid, and fetid, are equally bad; becauſe, according to *Galen*, they import a malignant Colliquation. Thoſe Stools alſo which are yellow, bilious, acrid, Saffron-coloured, or reſembling the Yolk of an Egg, and ſuch as are green, are bad, unleſs critically diſcharged. The Saffron-coloured, however, the æruginous, and the green, are the worſt; becauſe they indicate a violent internal Heat. All bilious Stools, not critically diſcharged, are alſo bad; ſince, in acute Diſeaſes, they prognoſticate Death, and, in Diſorders of a milder Nature, a Protraction of the Diſeaſe, Relapſes, and uncommon Pain.

Thus *Hippocrates*, in the ſecond Book of the *Coacæ Prænotiones*, 43, informs us, That it is a bad Sign to have an Acrimony, and a biting Pain, produced by Bile, about the Mouth of the Stomach; becauſe this Circumſtance denotes a Redundance of Bile, not only about the Mouth of the Stomach, but alſo in the Inteſtines. And *Hippocrates*, in the 47th *Aphor.* of *Sect.* 4. condemns all bilious Evacuations. Acrid Stools of this Kind, diſcharged in burning Fevers, approaching to a Dyſentery, or Teneſmus, if theſe Diſorders are as yet crude, are generally fatal; for I have obſerved them in many Patients, who all died, after having ſtruggled for a long Time under their Diſtemper. Laſt

Year,

Year, I had a mournful Inſtance of this in my dear Wife *Guadagnina*, who, on the ſeventeenth Day, died of a burning Fever, attended with a bilious Diarrhæa, approaching to a Dyſentery. This is beautifully obſerved by *Hippocrates*, in the firſt Book of his *Epidemics*, where we have theſe Words: "They have frequently diſcharged Stools, which "were bilious, ſmall in Quantity, unmixed, and acrid." And afterwards he informs us, "That, in "the Summer and Autumn, Lienteries, Dyſenteries, "Teneſmi, and Fluxes, raged; and that the Stools "diſcharged were bilious, thin, acrid, frequent, "crude, and, in ſome Patients, aqueous." In the ſame Book he tells us, "That all thoſe Patients "had Diſturbances of the Belly, and Stools of the "worſt Kind." And, a little after, he informs us, "That the Diſeaſes, with which they were afflict-"ed, were Dyſenteries, Teneſmi, Lienteries, and "Fluxes." Of this we have an Inſtance in the Daughter of *Euryanactes*, with reſpect to whom *Hippocrates*, in the third Book of his *Epidemics*, ſays, "That on the twelfth Day ſhe diſcharged Stools, "which were bilious, ſmall in Quantity, unmixed "thin, acrid, and frequent."

Hippocrates, in his *Prognoſtics*, obſerves, that red and bloody Stools are not of leſs bad Preſage; for, ſays he, in *Prognoſt.* "Thoſe which are aqueous, "or white, or green, or highly red, or frothy, are "all bad." The Author of the *Prorrhet. in Lib.* 1, 2. affirms, "That, in all Diſeaſes, red Stools "are bad." Again, he condemns ſuch as are highly red. And, in the *Coacæ Prænotiones*, 330, 611, 613, 632. we have the following Words: "Highly red "Stools are bad, eſpecially when produced by a "Fault of the Liver, as happens in Patients labour-"ing under Diſorders of that Organ." But from theſe we except Stools of this Kind, which are critical, and relieve. Green and porraceous Stools are

are alſo bad, provided they are rendered ſo by the Violence of a Diſeaſe; becauſe, according to *Galen*, in his firſt Book *de Criſibus*, *Cap.* 11. they indicate an æruginous Bile, and an intenſe Heat.

Hippocrates, in his Prognoſtics, and in the 47th *Aph.* of *Sect.* 4. pronounces livid Stools fatal in continual Fevers; becauſe, according to *Galen*, theſe denote an intenſe Cold, and, as it were, a Mortification of the interior Parts. No leſs fatal than theſe are black Stools. According to *Galen*, in acute Diſeaſes, black Stools either indicate a Redundance of black Bile, or a parched and torrid State of the Blood. With reſpect to black Stools, *Hippocrates*, in *Aph.* 21. *Sect.* 4. tells us, "That black Stools, "reſembling black Blood, and diſcharged ſponta-"neouſly, either with or without a Fever, are very "bad."

Galen, in his Commentary on this Aphoriſm, aſſerts, that black Stools indicate a great Weakneſs of the Spleen and Liver, and alſo denote the Generation of a large Quantity of groſs and melancholic Blood: For this Reaſon black Stools are, in acute Diſeaſes, juſtly accounted fatal Prognoſtics, ſince Nature requires a long Time to concoct and correct this Humour. *Galen*, in a peſtilential Conſtitution, obſerved many Stools of this Kind, which were diſcharged not only by thoſe who died, but alſo by thoſe who recovered; but, in the former, they appeared either in the Beginning, or the Increaſe, of the Diſeaſe. When treating of good Stools, we have ſhewn, that black Stools are ſometimes beneficial; tho' when they appear whilſt the Diſeaſe is crude, and before the Signs of a due Concoction, they never fail to prove fatal; for then, according to *Galen*, they indicate, that an irreparable Injury is done to the Viſcera. According to *Hippocrates*, in the 23d *Aphor.* of his 4th *Section*, "If "thoſe who have been emaciated by acute or lin-

"gering

" gering Diſeaſes, by Wounds, or any other Cauſe, " diſcharge, by Stool, black Bile, reſembling black " Blood, they die the next Day."

According to *Galen*, all Stools tinged with various Colours are alſo bad, becauſe they indicate a Variety of Humours in the Body; to correct which, Nature requires a long Time, which ſhe cannot poſſibly have in acute and violent Diſorders, which quickly impair the Strength. *Hippocrates* therefore, in his Prognoſtics, juſtly affirms, " That Stools " tinged with different Colours, tho' the Patients " may ſtruggle for a long Time with their Di- " ſeaſe, yet never fail to prove fatal." And, in the 21ſt *Aph.* of *Sect.* 4. he tells us, that they are the more fatal, the worſe and more numerous the Colours, with which they are tinged, are. This was the Caſe of *Apollonius*, concerning whom *Hippocrates*, in the third Book of his *Epidemics*, ſays, " That he diſcharged Stools of various Colours and " Qualities, ſuch as black, virulent, pinguious, crude, " and acrid, and at laſt reſembling Milk.

Fetid Stools are alſo bad; becauſe, according to *Galen*, they are a Sign of Putrefaction. Thus *Hippocrates*, in his *Prognoſtics*, and in the 47th *Aph.* of *Sect.* 4. condemns all fetid Stools. But ſuch as are very fetid, liquid, yellow, pinguious, and what we call colliquative, are obſerved to be ſo highly fatal in acute Fevers, that very few Patients, who diſcharge ſuch Stools, have been found to recover; becauſe they denote a predominant Putrefaction, and a Loſs of Strength. They are alſo a highly fatal Sign in continual Fevers; and Stools of this Kind reſemble the Yolk of an Egg, diluted in fat Broth; only with this Difference, that they are highly fetid. With reſpect to theſe, *Hippocrates*, in the 3d Book of his *Epidemics*, affirms, " That " thoſe who laboured under either acute or chroni- " cal Diſeaſes, were cut off principally by Stools

" of

" of a bad Kind." And *Galen*, in his Comment on this Paſſage, uſes the following Words : " That " long-continued Plague, which appeared in our " own Age, cut off moſt of thoſe who fell the " Sacrifices of its Fury, in conſequence of their " Evacuations by Stool ; for the Matter diſcharged " was the Effect of Colliquation." Of this Kind were the Stools of the Concubine of *Nicolaus*, as *Hippocrates*, in the ſeventh Book of his *Epidemics*, informs us.

Theſe are the various Kinds of Stools which threaten Death, either with reſpect to their Subſtance, their Quantity, their Colour, or their Smell. Stools alſo diſcharged in a preternatural manner, and ſuch as are either continued too long, or evacuated without Conſciouſneſs of the Patient, are fatal ; becauſe, according to *Galen*, in acute Diſeaſes, they either prognoſticate a Delirium, or a fatal Loſs of Strength. With reſpect to this, the Author of the *Prorrhet.* in the firſt Book, 78. uſes theſe Words : " Stools, diſcharged without the Conſciouſneſs " of the Patient, if he is not delirious, are bad, " as it ſometimes happens in an hepatic Flux." In like manner, in continual Fevers, thoſe Stools which continue too long, either with or without a gnawing Pain ; ſuch alſo as are copious, and afford no Relief, are highly bad. By theſe *Hippocrates*, in his *Epidemics*, tells us, that many were cut off. Thus, in the firſt Book, he uſes theſe Words : " In the Summer and Autumn, Lienteries, Dyſen- " teries, Teneſmi, and bilious Fluxes, raged ; and " the Stools diſcharged were thin, frequent, crude, " acrid, and in ſome aqueous." And, in the third Book, he tells us, " That, with reſpect to the " Evacuations by Stool, many Patients were ſub- " jected to terrible Diſorders, eſpecially to a Te- " neſmus, which was principally incident to Chil- " dren, and thoſe who had not as yet arrived at

" Puberty,

" Puberty, many of whom died Lienteric." *Hippocrates* alſo, in the 43d *Aph.* of *Sect.* 6. informs us, " That Perſons, weakened by a long-continued " Dyſentery, unleſs they die of it, fall into a Lien- " tery, or Dropſy, which proves fatal to them." All Stools therefore, of this Kind, are fatal, if they appear at the Beginning of the Diſeaſe, without any Signs of a previous Concoction; at which time no Evacuations are good and laudable, but ſymptomatical and bad. Stools of this Kind *Hippocrates* had in his View, when, in the third Book of his *Epidemics*, he uſes theſe Words: " Moſt had their " Bellies diſturbed, and were ſeized with Horrors " and Sweats, which were not critical." With reſpect to Stools of this Kind, in *Hippocrates, in Epid. Lib.* 3. we find theſe Words: " Two Brothers, the " Companions of *Cecrops*, from the Beginning, " diſcharged Stools which were black, feculent, in " Colour reſembling Aliments prepared of Blood, " (καρυκειδέα) highly bilious, and frothy."

Bad Stools are alſo known from their preceding, their concomitant, and ſubſequent Signs, and from their being ſo far from determining the Fever, that they rather render the Patients worſe. Thus *Hippocrates*, in the third Book of his *Epidemics*, ſays, " The Stools diſcharged did not alleviate the Symp- " toms." And, in the firſt Book of the *Prorrhetics*, 129. theſe Words occur: " In acute Diſeaſes, " after a moderate Eruption of Blood and black " Stools, Deafneſs is bad." In the ſame Book, 81. we are told, " That, in burning Fevers, attended " with ſome Degree of Shivering, and frequent " Diſcharges of aqueous Bile, a Diſtortion of the " Eyes is a bad Sign, whether the Patients are " ſeized with a Catalepſis or not." And, in the ſame Book, 108. we are told, " That ſublivid Stools, " accompanied with Perturbations of the Inteſtines, " and a Diſcharge of thin and aqueous Humours,

"are bad." In the ſame Book, 127. after Eruptions of Blood, black Stools are ſaid to be bad; ſuch were theſe obſerved in *Silenus*, *Hermocrates*, the Daughter of *Euryanactes*, the Youth lodged in the *Forum Mendacium*, *Parius*, *Pythion*, *Apollonius*, and many others, whoſe Hiſtories occur in the Writings of *Hippocrates*; the beſt Source from which we can poſſibly learn to draw Prognoſtics from the Characteriſtics of Stools, whether of the good or bad Kind.

CHAP. XII.

Of Predictions from URINE; *of the Nature and Cauſes of* URINE; *and of what Importance it is with reſpect to Prognoſtication.*

SINCE it has been demonſtrated that the Life and Death of the Patient, in acute Diſeaſes, may be predicted from the Stools, we are now, in courſe, to examine into the Signs and Prognoſtics which may be afforded from *Urine*, relating to the ſame Subject; for the Obſervation of the *Urine* is of no leſs Importance, than that of the other Excretions, towards the preſaging a good or bad Event to Diſeaſes. *Galen de Loc. affect. Lib.* 6. *Cap.* 4. tells us, that the gibbous Parts of the Liver, and all others which are ſuperior to theſe, are ſubjected to an Expurgation by *Urine*; and *Com.* 2. *in Lib. Prognoſt.* 7. 26. he ſays, That the *Urine* is an Indication of the Affections of the Bladder and Kidneys; and more than this, he tells us, *Com.* 2. *in* 1 *Prorrhet. T.* 2. that it indicates alſo, the Strength or Weakneſs of the Blood-Veſſels, and of the Faculty which generates the Juices. Many Diſorders therefore, tho' not all, as is vulgarly imagined, in a great many Parts of the Body, may be judged of by the *Urine*, as may alſo all Fevers, Hectics excepted,

cepted, and Inflammations, tho' these latter, when affecting the Thorax, are first signified by the Spit, as those which affect the Belly are indicated by the Stools; but even in these Cases, the Judgment which may be made of them from the Urine, is not to be despised.

Since therefore the Observation of *Urines* is of vast Moment towards the Prognostics of many Diseases, it justly deserves our Inquiry how far we may venture to prognosticate from them, with respect to the Life and Death of the Patient. For this End it will be proper to premise a few Things concerning the *Differences* and *Causes* of *Urines*, which are necessary to be known, in order to predict Events from them in Diseases.

Every Physician knows, that the *Urine* is a serous Excrement, secreted by the Kidneys, and from them, by the Ureters transmitted to the Bladder; from which it is excreted, and discharged from the Body. But by *Urine* we understand not only the serous Humidities, but all other Substances which are evacuated by *Urine*, since they are of great Moment towards a Prognostic; for the Matter of *Urine* seems to be of three Sorts: Sometimes the Excretion consists of the Humidities of the Meat and Drink, which, from those who drink much, are commonly discharged in a crude and aqueous State. Secondly, the *Urine* is sometimes nothing but the serous Humidity of the Blood, impregnated with the Quality of the predominant Humour; and, in the last Place, it may be composed of Humidities proceeding from a Colliquation, ~~as~~ when it is of a pinguious Substance. This triple Matter of the *Urine* is very elegantly described by *Hippocrates*, 6 *Epid. Sect.* 5. *Aph.* 14. in the following Words; Ὄυρον ὁμόχρον βρώματι καὶ πόματι, καὶ ὡς ἔσωθεν ἐὸν, ὑπὸ τȣ̃ ὑγρȣ̃ ξύντηξις, "Urine is of the same Colour

" with the Meat and Drink, and is, as it were, a " Colliquation of the internal Humour."

But let us now take a diſtinct View of the Differences of *Urines*, and they may be diſtinguiſhed with reſpect to their *Subſtance*, *Qualities*, *Quantity*, and *Contents*.

As to their *Subſtance*, ſome are thin, others thick, and others are of a middle Kind; of the thin Sort, ſome continue a long Time, others ſoon become thick; after the ſame manner, of Urines voided thick, ſome continue in that State, others become thin.

With reſpect to their *Qualities*, there is a triple Difference obſervable, one in regard to their *Colour*, another as to their *Clearneſs* or *Obſcurity*, and a third with reſpect to *Smell*.

Urines, with regard to *Colour*, are diſtinguiſhed into *white*, *pale*, *yellow*, *gold-coloured*, *red*, *green*, *livid* and *black*. There are ſeveral other Colours of *Urine* enumerated by ſome; but theſe, which are the principal, will be ſufficient to furniſh us with Prognoſtics: And ſome of theſe Colours are united with, or proper to *Urine* of a thin Subſtance, others to thick *Urine*. To thin *Urine* belong the *light red*, *yellow*, *green*, *livid*, and alſo the *black* Colours. Some think, that only the *pale*, *light red*, and *yellow*, are proper to thin *Urine*; but it is certain, that the *green*, *livid*, and *black*, are ſometimes obſerved in *Urine* of a thin Conſiſtence; as, for Inſtance, in the Caſes of *Herophon*, the Wife of *Epicrates*, and *Meton*, obſerved by *Hippocrates*, 1 *Epid. Ægr.* 3, 5, 7. Of *Meton*, he ſays, " That his Urine was thin and " blackiſh." It cannot, however, be denied, that *black Urine* is commonly thick; but the *pale*, *light red*, and *yellow*, are never voided thick, but are conſtantly thin; for theſe Colours are imputed to a Want of Matter.

With

With respect to *Perspicuity*, or *Obscureness*, in the second Place, some *Urines* are *clear* and *lucid*, others *turbid* and *obscure*; and of those which are voided clear, some remain so, others, in a little time, become foul or turbid; in the same manner, of Urines excreted turbid, some continue so, others, by a subsiding of the gross Matter, become clear.

With respect to *Smell*, also, in the last Place, some *Urines* are *fetid*, others not.

Urines, as was said, are distinguished, thirdly, with respect to their *Quantity*; for sometimes the Excretions are copious, sometimes small, sometimes moderate, and, on some Occasions, wholly intercepted.

The last Distinction mentioned of *Urines* regards the *Contents*; and under this Head may be observed a Multitude of Differences in *Urine*. We call the *Contents of Urine* that Substance, which appears in any manner separated from the Body of the *Urine*, and is observed sometimes on its Superficies, sometimes in the middle of the Vessel, and sometimes at the bottom. This last the *Greeks* call *Hypostasis*, and we (the *Latins*) *Subsidentia*, *Residentia*, *Sedimenta*, and *Subjecta*, (the *Hypostasis*, Settlement or Sediment, which subsides to the bottom of the Urinal.) When the *Contents*, or separated Corpuscles, occupy the middle of the Vessel, they are called by the *Greeks Enæoremata*, and by the *Latins Sublimationes*, *Suspensa*, *Sublimia*, and *Sublimamenta* (the *Enæorema*, or pendulous Substance in the middle of the *Urine*). If the *Contents* appear on the Superficies of the *Urine*, they take the Name of *Nubes* and *Nubeculæ*, "*Clouds* and *Mists*, or *Films*." Under the Head of *Hypostasis*, or *Sediment*, may be reduced a Variety of subordinate Distinctions; for some *Hypostases* are thick, others thin, some continuous, others discrete, or incoherent, and not at all united, but unequally dispersed through the

Subſtance of the *Urine*. They are alſo diſtinguiſhed into *white pale*, *yellow pale*, or *deep red*, *green*, *livid* and *black*, and into *fetid*, and not *fetid*. Again, of *thick* Sediments, ſome conſiſt of crude and groſs pituitous Humours, others are of a melancholic, or black aduſt, and others, to name no more, of a red and ſanguineous Conſiſtence. Theſe *thick* Sediments, or *Hypoſtaſes*, appear alſo of various Forms; ſome appear in the Shape of Grains, and are for that Reaſon called by the *Greeks Oroboides*; ſometimes they ſhew like Scales, and have the Name of *Petaloides*; ſometimes like Bran, narrower, but thicker than the ſcaly Sort, and take the Appellation of *Pityroides*; and, in the laſt Place, theſe *Hypoſtaſes* ſometimes reſemble a Kind of Meal, and are hence called by the *Greeks Crimnoides*; and like theſe laſt, in Appearance, are the purulent *Urines*, which conſiſt of Pus. Sometimes alſo there appears in the *Urine*, a thick, pituitous Subſtance, and a mucous Humour.

In the *Enæoremata*, or ſuſpended Corpuſcles, as alſo in the ſuperficial Clouds, or Films, appear the ſame Varieties, with reſpect to Continuity and Diviſion, Equality and Inequality, Thickneſs and Thinneſs, Difference of Quantities, and Diverſities of Colour, with thoſe before aſcribed to the Hypoſtaſes. But it is proper to the ſuperficial *Contents*, to conſiſt ſometimes of oily and pinguious Particles,

CHAP. XIII.

Of the Cauſes of different URINES.

IN treating on this Head, we ſhall begin with the *thick* and the *thin Urine*. The latter Sort, in Fevers, always indicates a Weakneſs of Concoction, and is occaſioned either from an Obſtruction of the Blood-veſſels, Ureters, Kidneys, or Bladder, by which

 means

means only an ichorous, or thin ſerous Humidity is excreted; or when the Humours take their Courſe to the Head, as happens in Phrenſies, where a *Thinneſs* of *Urine* is a common Symptom. Hence we may conclude, that a *thin Urine* is excreted when nothing of the Humours happens to be mixed with it, and that a *thick Urine* is occaſioned from a Mixture of ſomething which is the Reſult of a Concoction attempted by Nature, or the Removal of ſome Obſtruction. That a *thin Urine* in Fevers always ſignifies Crudeneſs, we are taught by *Galen*, in many Places; and *Hippocrates*, 3 *Epid. Sect.* 3. *Stat. Peſt.* ſpeaking of epidemical burning Fevers, tells us, "They were attended with plentiful Excretions of "*thin Urine*, which had nothing critical, nor were "of any Service to the Patient." This *Thinneſs* of the *Urine* ſometimes continues, ſometimes alters to *Thickneſs*; the latter ſhews, that Nature has begun its Work or Concoction; but the other indicates, that the Buſineſs is yet unattempted, and is a Sign of an extraordinary Crudeneſs; as we are taught by *Galen*, *Lib. de Urinis*, *Cap.* 3.

Thick Urine is occaſioned by a Mixture of Humours, and if it appears in the Beginning, indicates a Redundance of groſs Humours; as we are told by *Galen*, *Lib. Quæſita in Hippocratem dicta*; but in the State or Height of the Diſorder, it ſhews that Nature attempts an Excretion of the Humours.

Much Urine proceeds from plentiful Drinking, or a Redundance of Humidities, as in a Dropſy, and a Suppreſſion of Evacuations by Stool in an humid State of the Belly: On which Occaſion, we are told by *Hippocrates*, *Sect.* 4 *Aph.* 82, "That copious Excre-"tions of *Urine* by Night, are an Indication of ſmall "Diſcharges by Stool." An immoderate Quantity of *Urine* may be occaſioned, alſo, by an Inflammation of the Kidneys attracting to themſelves a vaſt Plenty of Humidities, as in the Diabetes, or from a Mul-

titude of Humours when the Patient undergoes a critical Expurgation by the Kidneys; as was the Case with many observed by *Hippocrates*, 3 *Epid. Sect.* 3.

Urine in too small Quantities proceeds from contrary Causes, as from drinking but sparingly, from a too plentiful Discharge of the Humidities by Stool or Sweat, or a Consumption of them by an immoderate internal Heat, as it usually happens in Burning-Fevers; in which Cases it is often totally suppressed. Sometimes also, as it is well known, the *Urine* is excreted in small Quantities, from an Obstruction of the Passages, by which it makes its Way through the Kidneys or Bladder.

As to the Causes of the *Colours* of *Urines*, we shall begin with the *white Urine*, which is either *thin* or *thick*. *White thick Urine*, as we are taught by *Galen*, indicates a Redundance of crude and gross Humours, especially what is excreted thick, and continues so. *Urine* of this Kind, in which nothing subsides, indicates an extraordinary Crudeness, and an extreme Weakness of the Faculty of Concoction. Hence such *Urine* in acute Diseases is pernicious; as it prov'd in the Cases of the Wife of *Dromeades*, 1 *Epid. Ægr.* 4, 11. But *Urine* of this Kind, which begins to grow thinner, shews that Nature has begun Concoction.

White thin Urine, which *Galen*, *in Com.* 4 *Lib. Aph.* calls *aqueous Urine*, has for its Causes either a Weakness of the concoctive Faculty, as in old Persons, or an Obstruction of the Kidneys, as in Neptritic Disorders, before the Stone is discharged; or an Obstruction of the Liver; or, which often happens, a total Diversion of the bilious Humour to the Brain; for which Reason, such *Urine* portends a Phrensy, as *Galen* assures us, *Lib. de Urin. Cap.* 6. As this Kind of *Urine* indicates an highly crude State of the Disease, with an extreme Weakness of the concoctive Faculty, it is of all other *Urines* the most pernicious,

especially in bilious Diseases; as we are assured by *Galen*, 1 *Lib. de Crisibus*, *Cap.* 12. and *Com.* 2. *in Prognost. T.* 32.

The Cause of *pale Urine* is the Mixture of too small a Quantity of the yellow Bile with the serous Humidities; but this Sort of *Urine* seems not far removed from a State of Concoction, provided it be not very thin.

Yellow, light-red, or Saffron-coloured Urines, if *thin* at the same Time, indicate the Disease to be in an absolutely crude State, and the Viscera affected with violent burning Heat; but when thick, it is a Sign of Concoction, and sometimes of a critical Excretion.

Red and *reddish Urines* take their Colour from the Blood, as we learn from *Galen*, *Lib. de Cris.* and *Com.* 2. *in Prognost.* and more fully *Com. in* 3 *Epid.* They are also occasioned by an Excretion of half-concocted Blood by the urinary Passages; and indicate, as he says in the Treatises just mentioned, a Redundance of an unconcocted and serous Kind of Blood in the Vessels, and the internal Parts of the Body. Such *Urine* is, also, an Indication to us of the Imbecility of the secretory Faculty; whence *Hippocrates*, *Lib.* 1. *Prognost.* tells us, That *reddish Urine* signifies a long Duration of the Disorder, or that a long Space of Time is required for the due Concoction of the Blood. *Reddish thin Urine*, though the Author of the Book *de Urinis* denies there is any such *Urine*, is occasioned by a slight Tincture of ichorous Blood; but the *thick* and *reddish* Kind proceeds from a Redundance of unconcocted Blood; as may be observed in that burning Fever called a *Synochus*.

Resembling the former, is that *Urine* which is coloured with Blood, and called *bloody or sanguineous Urine*. Such Excretions are occasioned by the infirm State of the Kidneys, and a Relaxation of the Vessels which terminate in those Parts, called an *Anastomosis*, or a Relaxation of the Ducts which lie

between the firſt and ſecond Sinus; from ſuch Cauſes proceeded the *bloody Urine*, diſcharged by *Apemantus* and the Carpenter, mentioned by *Hippocrates*, *Sect.* 4. *Aph.* 86. where he ſays, "If Blood, Pus, or "Scales, are evacuated by *Urine*, and this *Urine* has "alſo a fetid Smell, the ſame indicates an Ulcera-"tion of the Bladder:" And *ibid.* 77. "A ſudden "[ἀπὸ τοῦτο μάτος ſpontaneouſly,] Diſcharge of "Blood by the Way of the *Urine*, indicates a "Rupture of ſome ſmall Vein in the Kidneys."

Green Urine is either from porraceous Bile, generated in the Stomach, as *Galen* ſays, from the Crudeneſs of the Humours, or elſe from an æruginous Humour in the Veſſels, which owes its Origin, according to the ſame Author, *Com.* 2. *in Prognoſt.* to a burning Heat, and vehement Aduſtion of yellow Bile. In Perſons who are in Health, or free from a Fever, ſuch *Urine* is generally a Sign of porraceous Bile; but in acute Fevers and Inflammations of the Viſcera, it indicates an æruginous and bilious Humour, according to *Galen*, *Lib.* 2. *de Criſ.* where he determines this Colour to proceed from an Alteration of yellow Bile, by the Force of a burning Heat, into Bile of a black Colour.

Next in Colour to *green* is *oily Urine*, which, however, is not fat, or pinguious; but, as *Galen*, *Com. in* 3 *Epid. T.* 72. and *de Criſibus*, deſcribes it, reſembles Oil in Colour and Conſiſtence; and this Sort of *Urine*, as he tells us, he had ſometimes obſerved proceeding from a Concoction of the Diſeaſe, without any bad Conſequence to the Patient.

But *pinguious*, or *fat Urines*, which by their Fatneſs reſemble Oil, are called *oily*, becauſe, like Oil, they ſwim on the Superficies, have quite another Cauſe, as proceeding always from a Colliquation of the Fat, either of the whole Body, or only of the Kidneys. To this Purpoſe we read in *Sect.* 7. *Aph.* 35. "That a pinguious and compact *Hypoſtaſis*, indi-

cates

cates an acute Diſorder of the Kidneys." And we may know, ſays *Galen*, in his *Comment.* on that *Aphoriſm*, when there is a Colliquation in the whole Body from the feveriſh Heat, if it were only by an Excretion of Fat with the *Urine* ſucceſſively, and not all at once, as in a Colliquation only of the Kidneys. Hence we conclude, that there are two Sorts of *oily Urines*; one, which in Colour and Conſiſtence only appears very like Oil; and another, which is of a pinguious Subſtance; and which *Hippocrates*, in the *Aphoriſm* before-mentioned, ſays, contains Fat. Of this latter Sort of *oily Urine*, he ſays, in his *Prognoſtics*, "If there be a Fatneſs on the Superficies re-"ſembling a Spider's Web, it is to be condemn'd, "for it is a Sign of a Colliquation." *Galen*, *de Sanit. tuend.* tells us, "That this Fat, ſwimming on "*Urine*, is like that which concretes on the Superfi-"cies of Broths when cooled." And *Lib. de Urinis*, a Treatiſe aſcribed to him, he makes three Diſtinctions of this Kind of fat or *oily Urine:* The firſt is what the *Greeks* call *Elæochroos*, which is of the Colour of Oil, and indicates a beginning Colliquation; the ſecond is called *Elæophanes*; this has a more exquiſite Mixture of oily Particles, and ſhews that the Colliquation increaſes; the laſt is the *Elæodes*, which, in its whole Subſtance, and in all Reſpects, reſembles Oil; and ſhews the laſt Degree or Height of a Colliquation. But the ſame Author, *Com. in 3 Epid.* 72. makes two Kinds of *oily Urine*; one like Oil in Colour and Thickneſs, but void of Fatneſs; another fat, of which there are two Sorts; one with a Fatneſs ſwimming on Top, like the Eyes of Oxen, called by the *Greeks*, *Elæophanes*; and another, which has its Superficies covered with a fat Subſtance, reſembling a Spider's Web; and is called *Elæodes*. All theſe Kinds of *oily*, or, more properly, *pinguious Urines*, proceed from a Colliquation of the Fat by an igneous Heat, as was before obſerved.

Urine

Urine of a *livid* Colour proceeds from an immoderate Coldness, according to *Galen*, *de Crif. Lib.* 1. *Cap.* 12. and is therefore pernicious in acute Distempers, as indicating an Extinction of the natural Heat. It is, however, sometimes occasioned by a gross, livid Matter; and on that Account not denied by *Hippocrates* to be good, and sometimes critical.

Black Urine is either the Effect of an immoderate Coldness (though in that Case it may more properly be stiled *obscure* than *black*), or of a burning Heat. *Galen*, *Com. in* 1 *Prorrh.* tells us, "That "*black Urine* is occasioned by a Mixture of black "Bile with the Serum, which tinges the *Urine* with "Colour:" And, *Com. in* 3 *Epid.* he says, "That it "proceeds from a melancholic Blood, which, like "Soot, communicates its Colour to the Serum." Hence, *Lib.* 1. *de Crif. Cap.* 1. he says, "That *black* "*Urine* is a Sign of a Redundance of black Bile, or "adust Blood in the Body." But here we are to make a Distinction of this Kind of *Urine* into that of a thick and a thin Consistence.

Thick black Urine always derives its Colour from a more than ordinary copious Excretion of a gross atrabilious Humour, or black Bile, or adust Blood; whence in Quartans, and Disorders proceeding from the Spleen and Melancholy, a thick and black Kind of *Urine* is evacuated.

A *thin* and *black Urine*, *Galen*, *Com.* 2. *in Prognost.* and *Lib.* 1. *de Crif.* supposes to proceed either from excessive Coldness, which occasions also a Blackness of the Blood, or from an immoderate Heat scorching the Blood. We know and can predict these Kinds of *Urine*, because they are preceded by *Urine* of a yellow, light-red, or Saffron-colour; livid *Urine* also changes to black.

We should next in Order, after *black Urine*, treat of the Causes of *clear* and *foul*, or *turbid Urine*. As for *clear Urine*, which is permanent, or continues in

a State

a State of Clearneſs, it is included in what has been ſaid of the Colours of *Urine* in its thin Conſiſtence; and therefore we are to treat only of ſuch *Urine* as is excreted *clear*, but after ſome Time becomes *turbid*. This Kind of *Urine* every one knows to be crude, and to become foul and diſturbed from a Redundance of groſs Flatulences; and conſequently it is regarded by every Phyſician of the leaſt Experience, as an Indication of Nature's Efforts towards a Concoction. *Galen. de Sanit. tuend. Lib.* 4. *Cap.* 4. ſays, "If the *Urine* be excreted pure and clear, but is "immediately diſturb'd, it ſhews that Nature ſets "about the Concoction of the crude Juices; if the "*Urine* becomes not foul immediately, but after "ſome time, it is a Sign that Nature has not yet "begun its Work, but will attempt it hereafter." The ſame Author, *Com. in* 3 *Epid. in* 4 *Aph. & Lib.* 4. *de Sanit. tuend. & Lib.* 1. *de Criſ.* makes three Sorts of *turbid Urine*; one excreted clear, and becoming *turbid* afterwards, of which we now ſpeak; another excreted *turbid*, and becoming clear; and a third which is excreted *turbid*, and always remains in that State. This laſt is by Phyſicians generally call'd *Subjugalis*, with reference to Horſes *ſub jugo*, "under the Yoke," or uſed to draw; becauſe in Colour, Thickneſs, and Foulneſs, it reſembles the *Urine* of a working Horſe. Such Sort of *Urine* proceeds from crude and groſs Humours, agitated by Heat, and an Elevation of numerous Flatulencies thence occaſioned; which mix with the Serum, and render it confus'd and turbid. For this Reaſon, *Hippocrates*, 4 *Aph. Cap.* 9. ſays, "That *turbid Urine*, like that of Horſes, in Fevers, indicates a preſent or future *Cephalalgia*;" as it is a Sign to us, he means, that Multitudes of Vapours are elevated and conveyed to the Head. *Galen*, *Com.* 5. *in* 6 *Epid. T.* 15. ſays, "That *turbid Urine*, like "that of Horſes, is proper to thoſe who abound

"with

" with crude Humours, which are put in a State " of Fusion by the Heat." By this means, being converted into a spirituous Kind of Substance, they furnish Plenty of Matter for flatulent Exhalations to the Head. *Turbid Urine* then, we find, proceeds from crude and gross Humours agitated by Heat.

Turbid Urine, which becomes clear, is, from the natural Heat employed in Concoction; but *Urine* always remaining in a *turbid* State, is generally the Effect of a febrile Heat, agitating and confounding the Mass of Blood; and is such as we see in the Beginning of malignant Fevers, when Nature has done nothing towards a Concoction. *Avicenna*, and the other *Arabian* Physicians, tell us, " That *turbid* " *Urine*, which never settles, foreshews an Ebulli- " tion of the Humours, on Account of the Violence " of the extraneous Heat, and the Weakness and " Indisposition of the natural Heat towards a Con- " coction." But *Galen*, *de Crif. Lib.* 1. *Cap.* 12. says, " That *Urine*, remaining *turbid*, without be- " coming in the least clear, indicates that Nature " has begun an Agitation in the Blood, and is in " full Vigor and Strength, fit for Concoction; but " that *Urine* excreted clear, and soon after becoming " *turbid*, signifies, that the Agitation of the Hu- " mours towards a Concoction is not yet begun, but " may be expected." For these Reasons, he prefers that Kind of *turbid Urine*, which always remains in that State, because they indicate a beginning Concoction, as he more clearly expresses it, *de Sanit. tuend. Lib.* 4. *Cap.* 4. where he says, " That *Urine*, " *foul* or *turbid*, like that of Horses, indicates a " Repletion of the Veins with such Humours as are " called crude; but that Nature, however, ceases " not from her Work, but powerfully concocts " them."

And of *Urine* which becomes *turbid* after Excretion, he there adds; " If it be voided pure, and immediately

" immediately turns foul, it ſhews that Nature at-
" tempts a Concoction; but if it grows *turbid* at
" ſome Diſtance of Time, it is a Sign that Nature
" is not at preſent, but will ſhortly be, employed
" in that Work." A little after he ſeems to aſſert the contrary, when he ſays, "If there be no Se-
" paration, or what ſubſides is bad, it ſhews that
" Nature is weak, and wants Aſſiſtance in con-
" cocting the Juices. Upon the whole, it muſt be ſaid, that *turbid Urine*, continuing in that State, is ſometimes the Effect of an extraneous Heat agitating the whole Maſs of Blood, and ſometimes proceeds from the natural Heat, or Nature itſelf employed in Concoction; and that in the latter Caſe, it is diſtinguiſhed from the other, by its not appearing in the Beginning, but in the Increaſe of a Diſorder, when Nature manifeſtly attempts a Concoction; after which the *Urine* has a Sediment, or becomes leſs *turbid*, whilſt the Strength is not much impair'd, and the Diſeaſe is free from mortal Signs: And this, perhaps, is no more than what *Galen* means in the Chapter above quoted, by the following Words:
" Of all *turbid Urines*, let the general Character be
" a Separation of the *thick* from the more *liquid*
" Part, which is either the quick or ſlow; or none
" at all. If it be quick and immediate, and
" what ſubſides be white, ſmooth, and equal, it
" ſhews Nature far ſuperior to the Juices which it
" concocts; but if what ſubſides be bad, Imbecillity
" of Nature is ſignified." If then ſuch *turbid Urine* appears, as we ſaid, in the Beginning of a Diſorder, at which Seaſon Nature attempts no Concoction, on account of the Ebullition and Agitation of the extraneous and febrile Heat, it indicates a Turbation from a Redundance of crude and groſs Humours, put in a State of Fuſion by the vehement Heat, which, in Conjunction with the Violence of the Diſtemper, and the extreme Weakneſs of the Patient, may be

juſtly

juſtly eſteemed a fatal Prognoſtic. *Galen*, therefore, might well ſay, *Com. in* 4 *Aph. T.* 70. "*Turbid* "*Urine*, which comes to no Settlement, if the "Patient be ſtrong, ſhews the Diſeaſe will be of "long Duration; if weak, that it will be mortal." *Urine*, then, which appears *turbid*, and continues ſo in the Beginning of a Diſeaſe, proceeds not from the natural, but an extraneous Heat, which is confirm'd by the Weakneſs of the Patient, and ſome pernicious concomitant Sign, and from its having nothing of a laudable Sediment.

We have ſpoken largely of the Cauſes of *turbid Urine*, and intend to treat, in a few Words, of the Origin and Cauſes of *pungent Urine*, or ſuch as is excreted with Pain, and a pungent Senſation. This, in ſhort, proceeds from highly acrimonious and hot Humours, which are voided together with the *Urine*; and, according to *Hippocrates*, 1 *Epid. Sect.* 2. are the Occaſion of a Strangury. And *Galen*, *Com. in* 1 *Epid.* to the ſame Purpoſe tells us, "That when the excrementitious Parts of the whole Body "are purged off by the Paſſage of the Kidneys, "the Patient is ſeized with a Strangury, as well "upon other Accounts, as principally from the "Acrimony of the confluent *Urine*." This Acrimony is the Effect of an immoderate Degree of Heat.

Fetid Urine is known by every Body to be the Effect of an extraordinary Putr f ction, either in the Veſſels, or the Kidneys, or the Bladder.

As to *Urines* of an equal and unequal Conſiſtence, *Galen Com. in* 7 *Aph. T.* 33. makes the following Remarks: "If we take the Word διεςηκὼς, (diſtant "or ſeparate) in its proper Senſe, the Thing is "impoſſible, becauſe *Urine* is always continuous, "without Interſtices; but if we underſtand by this "Form on Inequality of Subſtance or Conſiſtence, "he (*Hippocrates*) rightly ſays, that ſuch an Inequa-

"lity

" lity indicates a vehement Perturbation in the Body: " For when Nature prevails and is predominant, all " Things are equally united; but when it is repell'd " and controuled by Variety of ſtubborn and " rebellious Matters, that Portion of them which is " ſubdued and concocted takes one Form, and what " is renitent and refractory another; and when there " is a great Variety of theſe contumacious Particles, " it ſhews the Inequality in the *Urine* to be very " conſiderable, as well as the Perturbation, which is " the Cauſe of it."

We have given you the Cauſes of the various Kinds of *Urine*, and proceed to treat of the Cauſes of its Contents; under which Head we are to inquire the Reaſons of thoſe Contents, at the Bottom, which we call *Hypoſtaſes*, *Subſidences*, and *Sediments*, and what are the Cauſes of thoſe pendulous Contents in the Middle, which paſs by the Names of *Enæoremata* and *Sublimamenta*; as alſo, the Reaſons of the *Nubes* and *Nubeculæ*, or the Clouds and Films which ſwim on the Superficies of the *Urine*.

In general, the Variety of Contents in Urines depends on the various Generation and Mixture of Flatulences; for when there is a Redundance of theſe in the *Urine*, the excrementitious Particles are conveyed to the Superficies; when there is but a moderate or ſmall Quantity of them, they make this Settlement in the Middle; and if there be none at all, they reſide at the Bottom. Hence it is, that an *Hypoſtaſis* indicates a good Concoction, in which the Flatulences, being diſcuſſed, cauſe no Perturbation. This, however, is no neceſſary Conſequence from the Contents being lodged at the Bottom; ſince not every *Hypoſtaſis*, or *Sediment*, infers, of Neceſſity, a Concoction, but that which is white, ſmooth, and equal at all times; as we are taught by *Hippocrates* in his *Prognoſtics*. Nor do Clouds and Films always ſignify Crudeneſs: For, as we are told by the ſame Author,

Author, in the Book juſt quoted, Clouds on the Surface of *Urine*, if white, are good. And *Galen*, *Lib.* 1. *de Criſ. Cap.* 12. tells us, " That in Patients inured " to Faſting, and immoderate Labour, the Diſeaſe " often has its Solution before any Thing ſubſides in " the *Urine*; and it is generally ſufficient if there be " a white Cloud, and a white, ſmooth, and equal " *Enæorema*."

But white, ſmooth, and permanently equal Contents, in the Bottom of the Veſſel or Urinal, conſtantly ſignify Concoction; an *Enæorema* of that Kind, a leſs Degree of Concoction; and a Cloud of the ſame Sort, as being ſituated higheſt of all, a ſtill leſſer Meaſure of Concoction of the Diſeaſe.

The Contents, or excrementitious Particles, elevated in the Form of a Circle, to the Superficies of the *Urine*, is a certain Indication of a Delirium, as was obſerved by the Author of the 1 *Prorrhet.* and I have frequently found the Truth of it by Experience.

A copious Sediment, though it occupies the loweſt Place in the Urinal, indicates a Redundance of crude Humours, as *Galen*, *Lib.* 1. *de Criſ. Cap.* 12. has demonſtrated, from Examples of Children bred in Idleneſs, and pamper'd with full Diet, whoſe *Urine* abounds with Crudities, from a Repletion of the Body with crude Humours. And, *Com.* 2. *in Prognoſt.* he ſays, " That there appears a copious Sediment in *Urine*, when the Diſeaſe is fomented by crude Humours; and that there is very little or no Sediment in the *Urine* of thoſe who labour under bilious Diſeaſes, or are uſed to faſting and hard Labour.

A thin *Urine*, *Sediment*, or *Hypoſtaſis*, is a Sign of thin Humours; but a pure *Hypoſtaſis*, which ſcarce riſes upon ſhaking the Veſſel, ſhews a great Weakneſs of Nature in the ſecond Concoction.

Thick

Thick and groſs Sediments are, in like Manner, Indications of groſs Humours, agreeably to what we are told by *Galen*, *Com. in* 4 *&* 7 *Aph. & Lib. de Plenitud.* where he ſays, " That the Urine of voracious Perſons has a thick Sediment." We affirm therefore, that a groſs or thick *Hypoſtaſis* is an Indication of groſs Humours, and conſequently of difficult and troubleſome Diſorders.

An united, or continuous, and equual Hypoſtaſis, of a pyramidal Figure, is highly commended, as being a Sign of a very good Concoction; as, on the contrary, a diſcrete and unequal Sediment, or Hypoſtaſis, has a quite different Signification. *Galen*, *Lib.* 1. *de Criſ. Cap.* 12. For an Hypoſtaſis, which is unequal and diſcrete, or conſiſting of looſe and ſeparate Parts, ſhews a Redundance of groſs Flatulences in the Veins, which are incapable of being diſſolv'd and diſcuſs'd by Nature; as we are told by the Author of *Lib. de Urinis*, *Cap.* 19.

Unequal diſcrete Contents are diſtinguiſhed from an Hypoſtaſis, as making a Subſtance diſjunct, or diſunited, and diſpers'd, like ſmall and minute Particles of Sand, through the Body of the Urine. Theſe are the Effects of a copious Phlegm, or proceed from Pus, or a Colliquation of the ſolid Parts; and of this Nature are the Contents, reſembling coarſe Flour, and the Hypoſtaſis, which the *Greeks* call *Crimnoides*.

Red and reddiſh Contents ſignify Crudeneſs, and Want of Concoction; whence it is juſtly ſaid by *Hippocrates*, *Lib.* 2. *Prognoſt. Text.* 27. " That reddiſh Urine, " with a reddiſh and ſmooth Sediment, ſhews the " Diſeaſe to be of longer Duration than in the firſt " Caſe (where the Sediment is white, ſmooth, and " equal); but is, however, very ſalutary." The Author of the Book of *Urines* ſays, " That red Con- " tents proceed from an ichorous Blood, and ſignify " Want of Concoction."

Yellow and green Contents are bad, becauſe they ſhew that the Diſeaſe is fomented by a yellow, æruginous, or porraceous Bile.

The worſt Colours in the Contents of Urine, are the livid and the black. A livid Colour ſoon changing to black, proceeds from a Refrigeration of Heat; and a yellow, light-red, or green Colour, quickly altering into black, is the Effect of an igneous Heat burning the Humours. Juſtly, therefore, does *Hippocrates*, *Prognoſt. Lib.* 2. *Text* 27. pronounce black Clouds in Urine bad.

Of Contents in Urine, which proceed from a Colliquation, and therefore appear in various Shapes, thoſe Hypoſtaſes, which are called by the *Greeks Oroboides*, becauſe they reſemble the Pulſe *Orobus*, and alſo, *Sandarachoides*, are the Effects of a begining Conſumption of the Fleſh, after the Fat is conſum'd; and are Indications of a Colliquation, either of the whole Body, or of the Kidneys.

The Contents, or Hypoſtaſes, called in *Greek*, *Petaloides*, that is, *ſquamous*, or *ſcaly*, appear, according to *Galen*, when after a Colliquation of the Fat and Fleſh, the ſuperficial Parts are abraded by the igneous Heat.

The Pityroides, or furfuraceous Hypoſtaſes, which are narrower and ſtraiter, but yet thicker than the ſcaly Sort, are the Effects of a Dilaceration and Conſumption of the Veſſels of the ſolid Parts, by the igneous Heat.

In the laſt Place, the Contents, or Hypoſtaſes, called *Crimnoides*, which are like coarſe Meal or Flour, proceed from a Conſumption of the ſolid Parts, more violent than the former: Of theſe Kinds of Hypoſtaſes, we find *Hippocrates* paſſing his Judgment, *Lib.* 2. *Prognoſt. Text.* 28. in the following Words: "If the Hypoſtaſis of the Urine be Crimnoides, "like coarſe Flour], it is bad; but the *Petaloides* "[reſembling Scales] are worſe; the white and thin

"are

" are very bad, but the *Pityroides* [furfuraceous] are " ſtill worſe." Here *Galen*, in his *Comment.* on the Place, tells us, " That theſe Kinds of Urine are the Effects of an igneous Heat, ſcorching the Blood, or conſuming the Fleſh in an unequal Manner.

CHAP. XIV.

Of good URINES, *portending Recovery.*

URINE, as well as other Excretions, affords Indications in Diſeaſes, for a *Prognoſtic* of Death or Recovery, two Ways: Firſt, as it is a Sign of Concoction or Malignity; and, ſecondly, as it is a Cauſe, in diſcovering itſelf to be a good or bad Execretion. Of Urine portending a good Event, in both theſe Reſpects, we find *Galen*, *de Criſ. Cap.* 12. and *Com. in* 3 *Epid.* giving the following Deſcription: " The beſt Kind of Urine is what is of a moderate " Conſiſtence, anſwering in Proportion to the Quan- " tity of Drink, of a lightiſh red, or yellowiſh Colour, " with a white, ſmooth, and equal Sediment, or Hy- " poſtaſis." " The beſt Urine, ſays *Hippocrates*, " *Lib.* 1. *Prognoſt. Text* 26. is what has a white, " ſmooth, and crude Sediment, during all the Time " before the Criſis; for this ſignifies that the Patient " is in a ſafe State, and that the Diſeaſe will not be " of long Duration: But if there be an Intermiſſion, " and the Urine be ſometimes pure, and ſometimes " with a white and ſmooth Hypoſtaſis, the Diſeaſe " will be the longer, and the Patient the leſs ſecure." *Galen* adds, " The Urine ought to be of a moderately " Saffron-colour, and of a mean Conſiſtence, be- " tween thin and aqueous, and thick, like that of " Horſes." The ſame Author, *Lib.* 1. *de Criſibus*, " *Cap.* 12. ſays, " That the beſt Urine is rather of " a lightiſh red, than yellowiſh Colour." And *Com. in* 1 *Epid.* and *Lib.* 10. *Simpl.* he makes it moderately yellow; and *Lib.* 2. *de Sanit. tuend. Cap.* 2.

he ſays, " That a lightiſh red and bilious Urine, is " an Indication of a perfect Concoction in Diſeaſes."

In many Caſes concocted Urine has but little Colour; in others it is more deeply tinged; whence it appears, that the beſt Urine is not always obſerv'd to be of the ſame Colour. The divine *Hippocrates* was of Opinion, that we were not ſo much to regard Colour or Conſiſtence of Urine, as its Contents, in order to a Prognoſtic; ſince, in the Place juſt quoted, where he deſcribes the beſt Urine, he ſays not a Word of the Colour and Subſtance, but only of the Contents: For he tells us, " That the beſt Urine " is what has a white, ſmooth, and equal Sediment;" omitting the Colour and Subſtance, which are not obſerved to be always the ſame in ſuch an Hypoſtaſis. And though indeed, it be neceſſary for the Urine, when furniſh'd with the beſt Hypoſtaſis, to be of the beſt Colour, and of a moderate Conſiſtence, and in temperate Bodies, ſuch Colours are uſually obſerved, as before deſcribed, and reputed laudable; yet, as there is a vaſt Variety in Urine, with reſpect to the various Conſtitutions and Diſpoſitions of Bodies, we are to have recourſe to a general Method for diſcovering the beſt Kind of Urine in all particular Caſes. Here we are well directed by *Ariſtotle*, *Lib.* 1. *Probl. T.* 32. " The beſt Urine, " he ſays, is moderate in all Reſpects, and moſt " like that of the Perſon in Health; which is a Pre- " cept to be regarded by the young and unexpe- " rienced Phyſician, in his Inſpection of Urine; in " which, when he ſees any Alteration from what it " was in a State of Health and Soundneſs, he may " juſtly conclude, that the Patient is in a bad State " of Health." This of *Ariſtotle* is certainly a good Rule for judging of good and bad Urine, ſince the Theory of Similars and Diſſimilars is one of the chief Principles of the Art of Prognoſticating. Upon theſe Conſiderations, we alſo conclude, that in Diſeaſes, ſuch

Urine

Urine is beſt, as approaches neareſt to the Urine of the Patient in Health; and this is the Character which *Galen* alſo has given of it, *Lib.* 1. *de Criſ. Cap.* 12.

But for our clearer and more exact Diagnoſtics of the beſt Urine, we are attentively to conſider the Temperament of the Body and Viſcera, with the Age, Sex, Diet, and Way of living, of the Patient: For the Urine of Bodies of an hot Temperament is of an higher than ordinary Colour, and the Urine of Perſons of a cold Temperament, of a lower Colour than is conſiſtent with Mediocrity. In reſpect of Age, young and adult Perſons make thinner Urine, and more coloured than Children; and the Urine of Children is thicker than ordinary, as that of old Perſons is thinner, and more colourleſs. With regard to Sex, the Urine of Women is thicker and more colourleſs than that of Men, and more abounds with Contents: In other Reſpects, the Urine of voracious Perſons abounds with crude Sediments; on the contrary, the Urine of thoſe who are uſed to Faſting has but little Sediment, and is more colour'd than the former; and the ſame Appearance in the Urine is effected by Watchings and Fatigue; whereas that of thoſe who live in Idleneſs abounds with Sediment, and is leſs coloured.

Hence we conclude, that in Children, the beſt Urine is what appears of a thickiſh Conſiſtence, is but ſlightly tinged, and abounds with a copious, white, ſmooth, and conſtantly equal Hypoſtaſis. In Youth and Manhood the Urine ought to be more deeply tinged, and of a yellowiſh or lightiſh-red Colour, and of a thinner Conſiſtence, with fewer Contents, and ſo much the thinner, and more coloured, as the Body is of an hotter Temperament; and ſo much the leſs coloured, as the Temperament of the Perſon is colder. In Women the Urine, on ſome Occaſions, muſt be thicker, and more colourleſs than ordinary; in Perſons under Circumſtances

Faſting, Fatigue, and Watching, higher coloured, and thinner, with fewer Contents; and in thoſe who indulge themſelves in plentiful Living, and Idleneſs, the Urine muſt be expected leſs coloured, of a thicker Conſiſtence, and a more copious Sediment.

But in Bodies of a more moderate Temperatement, the beſt Urine is, as *Galen* ſays, of a moderately croceous Colour, of a mean Conſiſtence, anſwering in Quality to the Drink, with a white, ſmooth, and conſtantly equal Sediment; and, in ſhort, moſt reſembling the Urine of Perſons in Health. In all Caſes, the beſt Urine has a white and equal Hypoſtaſis, or Sediment. Urine with a pendulous Subſtance or Enæorema, is not ſo good; and that with a Cloud, or Film, worſe than the former. We are, however, taught by *Galen*, *Com. in 3 Epid.* That an Enæorema is ſometimes good; and that even a Cloud may be good enough to prove a ſalutary Prognoſtic, according to *Hippocrates*, in *Sect.* 4. *Aph.* 70. where we read "That Perſons in whom "the Fever comes to a Criſis on the ſeventh Day, "have a red Cloud in their Urine on the fourth "Day, and other Things in Proportion." "And "not only a Cloud, ſays *Galen*, which was not ſeen "before, prognoſticates a Criſis, but a white Cloud "much more; and a white, equal, and ſettled "Enæorema, more than either: But if the Diſ-"eaſe be very quick in Motion, and there be a "Change in the Colour and Conſiſtence of the "Urine, there are ſufficient Grounds for prognoſti-"cating an approaching Criſis." *Hippocrates*, *Lib.* 1. *Prognoſt.* ſays, "That a Cloud floating in the Urine, "if white, is good." And a little after, "We are "to conſider in theſe Clouds, whether they move "upwards or downwards, and alſo, what they are "of; for if they tend downwards, and are of the "Colour above-mentioned, (white), they are good "and laudable."

With

With respect to the Substance, Urine of a thin Consistence, with a good Colour, is laudable. Hence *Galen*, *Com. in* 1 *Epid.* says, "It is plain, that thin "Urines, but of a good Colour, promise a Reco-"very, on Account of the Goodness of their Colour; "but, in respect only of their Thinness, they require "a longer Time for Concoction." So that this Kind of Urine prognosticates indeed a Recovery, but it is after a considerable Time; as it happened in the Cases of *Cleonactides*, *Clazomonius*, 1 *Epid. Ægr.* 6, 10. and *Chærion*, 3 *Epid. Sect.* 1. *Ægr.* 6.

Thin and colourless Urine, where there are Signs of Recovery, indicates an Abscess, as we are taught by *Hippocrates*, *Lib. Prognost.* quoted by *Galen*, *Com.* 1. *in* 3 *Epid. T.* 4. to this Purpose: "Thin and "equal Urines, he says, excreted for a long Time "together, if there be other salutary Signs, indicate "an Abscess in the Parts below the Diaphragm." Thus it happened to *Pythion*, 3 *Epid. Ægr.* 8. who liv'd near the Temple of *Tellus*; of whom it is said, "From the first to the eighth Day his Urine was "thin, and colourless, and had a cloudy Enæorema; "on the tenth he fell into a Sweat, his Spit was "somewhat concocted, and he had a Crisis, about "which time avoided a thinnish [for ὑπόλευκα, as "all the printed Editions have it, I read ὑπόλεπτα] "Urine." On the fortieth Day after the Crisis, a Suppuration appeared in the Parts about the Anus, and the Abscess produc'd a Strangury.

Of Colours in Urine, the laudable, as we said, are the yellowish, lightish red, subcroceous, or somewhat Saffron-like Colour, the moderately pale, and subluteous Colour. The reddish Urine, with a reddish Sediment, is said, by *Hippocrates*, to be salutary, though it indicates a long Disease; the black Colour in Urine is not always bad; it is not so, for Instance, in Disorders of the Spleen, as appears in

Caſe of *Herophon*, 1 *Epid. Ægr.* 3. and in thoſe who abound with melancholic Blood; and the ſame is agreeable to what *Galen*, *Com. in Epid.* remarks of a female Patient, where he ſays, "That the Colour "of her Urine, though black, indicated no Danger, "becauſe proceeding from a Retention of the "Menſes, which were of a more melancholic Caſt." Plenty alſo of black Urine, which changes not to aqueous, critically excreted, is of Service. Hence *Galen*, *Com.* 3. *in Epiſt. T.* 73. ſays, He knew a Woman who wns very much relieved by a plentiful Excretion of ſuch Kind of Urine; beſides, black Urine, with a plentiful Hæmorrhage from the Noſtrils, as in the Caſe af *Meton*, 1 *Epid. Ægr.* 7. or a copious Flux of the Menſes, as was obſerved of the moroſe Woman, 3 *Epid. Sect.* 3. *Ægr.* 11. are not in the leaſt to be dreaded.

Of turbid, or foul Kinds of Urine, what ſoon ſettles or ſubſides, is good, eſpecially if the Sediment be white, ſmooth, and equal, according to *Galen*, *de Sanit. tuend. Lib.* 4. *Cap.* 4. where he writes, "That if there appears a Separation of the thicker "from the more liquid Subſtance, in the Urine, "and what ſubſides is white, ſmooth, and equal, it "indicates a Superiority of Nature in ſubduing and "concocting the Juice."

Clear Urine, which ſoon becomes turbid, may alſo be eſteemed beneficial, as it ſignifies, that Nature is at work in concocting the Humours.

With regard to Alterations in Urine, thoſe are eſteemed laudable which are made for the better, either in Colour, Conſiſtence, or Hypoſtaſis. Hence thick Urine, excreted after the Beginning of a Diſeaſe, is accounted beneficial, ſince Excretions, after the Commencement of a Concoction, become thick, if they were thin before; as on the other hand, when from thick they change to thin, it is a very good Sign; agreeably to the Doctrine of

Hip-

Hippocrates, in *Sect.* 4. *Aph.* 68. where we read, " That " they who void a thick, grumous Urine, and in ſmall " Quantities, and are not free from a Fever, are " relieved by a ſupervening plentiful Excretion of " thin Urine, which is moſt likely to happen when " there has been an Hypoſtaſis in the Urine from " the Beginning, or not long after." Here *Galen*, in his Comment, ſays, " That Plenty of thin Urine " is beneficial, as it indicates the morbific Matter " to be more attenuated."

It is beſt for Urine, from turbid to become clear, from colourleſs to grow coloured, from too high a Colour to become leſs coloured, and from wanting Contents to aſſume either a Cloud, Enæorema, or Hypoſtaſis, which are white and equal.

Such, then, are the Properties and Qualifications of Urine, by which it indicates a Recovery in acute Diſeaſes, as it is a Sign of Concoction; in the ſame manner it portends a good Event as a Cauſe, in ſhewing itſelf to be a ſalutary Evacuation.

For this Reaſon, Plenty of Urine excreted on a critical Day, indicates a ſalutary Criſis, and with the greater Certainty, if it be in its own Nature of a laudable Kind, as it was in the Caſe of *Nicodemus*, 3 *Epid. Sect.* 3. *Ægr.* 10. of whom *Hippocrates* obſerves, 3 *Epid. Sect.* 3. " That on the twenty-fourth " Day he voided much white Urine, which had a " copious Hypoſtaſis; and he fell into a plenti- " ful hot Sweat, had a Criſis, and was freed " from his Fever." And of *Pericles*, *ibid*, *Ægr.* 6. he ſays, " On the third Day his Fever was abated, " and he voided Plenty of concocted Urine, with " a copious Sediment." *Chærion* alſo, *ibid. Sect.* 2. *Ægr.* 5. " is ſaid to eſcape, by the Benefit of a " copious Effuſion of bilious Urine." And, 6 *Epid. Sect.* 4. *Aph.* 2. " That an Evacuation of thick " white Urine, ſuch as happened to the Servant of " *Archigenes*, ſometimes happens in Quartans at-

" tended

" tended with a Laſſitude, and prevents an Ab-
" ſceſs." But that Kind of thick Urine, which reſembles coarſe Meal, portends Death, or a long Duration of the Diſeaſe, as we are taught by *Galen*, *Com. in* 7. *Aph.* 31.

Acrid Urine, evacuated with Pain, and in great Quantity, frequently happens to be critical in acute Diſeaſes; agreeably to the Obſervation of *Hippocrates*, 1 *Epid. Sect.* 1. where, after deſcribing an Epidemic Diſorder very fatal to Children, he ſays, " That the only ſerviceable, and moſt important " of all the Indications, and by which many eſcaped " the greateſt Danger, was an Alteration of the " Diſeaſe to a Kind of Strangury, and Abſceſſes " in the Parts affected." And a little after, " with " regard to the Strangury, it was tedious, and very " troubleſome to the Patient; the Urine, in this " Caſe, was copious, thick, various, red, mixed " with Pus, and excreted with Pain." To which he adds, " All who were in this Circumſtance reco-
" vered, and not one of them, as far as I know,
" died." The Caſe of *Pythion*, 3 *Epid. Ægr.* 1. which was much of the ſame Nature, and had probably the ſame happy Event; of whom we read, " That " on the fortieth Day after a Criſis, a Suppuration " was formed about the Anus, and converted itſelf " into a Strangury;" after which, it is probable that he recovered by the Benefit of copious Evacuations by Urine.

There are ſome Kinds of oily Urine, not fat, but reſembling Oil only in Colour and Conſiſtence, which are alſo ſalutary; theſe never happen, but from a perfect Concoction of the Diſeaſe, and have been ſeveral times obſerved by *Galen*, as he ſays, *Com. in* 3. *Epid. T.* 72. from a Concoction of the Diſeaſe, without any Detriment to the Patient. And ſo much for good Urines, which are of ſalutary Prognoſtication.

CHAP.

CHAP XV.

Of bad URINES, *which portend Death.*

THIN, white, aqueous Urine, of long Continuance, in a Diſeaſe not of a favourable Kind, is deſtructive, as we are aſſured by *Galen*, becauſe it indicates a very high Degree of Crudeneſs; and it is no leſs pernicious in acute Fevers, becauſe, according to the ſame Author, it ſhews that the yellow Bile has its Courſe upwards, and is carried towards the Head, from whence we may predict a Delirium and Phrenſy. And ſuch Urine we find condemned by *Hippocrates*, in *Sect.* 4. *Aph.* 72. where he ſays, "That white pellucid Urine is bad, "eſpecially in a Phrenſy." And *Galen*, in his Comment on the Place, ſays, that He never knew one in a Phrenſy, from whom ſuch Excretions of Urine proceeded, recover. For it is much better, as the Diſeaſe is wholly of a bilious Nature, that the Urine ſhould appear bilious, and worſt of all, that it ſhould be thin and tranſparent, as it was obſerved in *Philiſta*, labouring under a mortal Phrenſy, 3 *Epid. Sect.* 2. *Ægr.* 4. We conclude hence, that thin and aqueous Urine, in all acute Fevers, is bad, as portending, at leaſt, a long Duration of the Diſorder, with Relapſes; for Nature requires a long Time for the Concoction of Humours in ſo highly crude a State, when, if the Fever be not extremely violent, and the Strength not much exhauſted, the Patient has been ſometimes known, tho' after a long Time, to recover; but if the Diſeaſe be violent, and the Strength much impaired, ſuch Urine is abſolutely fatal. And this is what *Galen* means, *Com. in* 4 *Aph.* 71. when he ſays, "If the Strength was before exhauſted, ſuch white "perſpicuous Urine is pernicious, as in Phrenſies; "in which Caſe we have no Inſtance of Recovery."

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We may add, as a ſtronger Confirmation of their Fatality, their long Continuance, and Appearance after the Beginning of the Diſorder, as it happened in the Caſe of the Woman who lay ill in *Thaſus*, 3 *Epid. Sect.* 3. *Ægr.* 2. who, on the eleventh Day, evacuated ſuch thin aqueous Urine, and continued ſo to do till the fortieth Day. We have already obſerved from *Hippocrates*, *Lib.* 1. *Prognoſtic*, that a Continuance of ſuch Urine, with ſalutary Signs, prognoſticates a Solution of the Diſeaſe by an Abſceſs, as it actually happened in the Caſe of *Pythion*, who lived near the Temple of *Tellus*, 3 *Epid. Ægr.* 1. and is demonſtrated by *Galen*, in his Comment on the Caſe. But, on the other hand, where there are no ſalutary Signs to accompany it, a Continuation of ſuch Urine is always mortal. Hence *Hippocrates*, 1 *Prognoſt.* pronounces aqueous Urine one of the moſt deſtructive Kinds, and worſt of all in Children.

Thick Urines, according to *Hippocrates* in the ſame Book, are bad, eſpecially if they appear in the Beginning; at which time, as *Galen* will have it, *Comment. in Sect.* 4. *Aph.* 6. the Urine is generally thin: But thoſe Kinds of thick Urine, which have either none, or a bad Hypoſtaſis, are very bad; and of theſe, *Galen*, *Com. in* 4 *Lib. Aph.* ſays, "Thick Urine, without a Sediment, if the Strength "be pretty entire, portends a long Continuance of "the Diſeaſe; but if the Strength be much ex-"hauſted, the Death of the Patient." And *Hippocrates*, 1 *Epid. Sect.* 1. deſcribing an Epidemic Fever of the Semitertian Kind, ſays, "That in "ſome Subjects the Urine was thick, and had but "a ſmall Hypoſtaſis, and the ſame not of a due "Conſiſtence, but crude and unſeaſonable." *Galen* alſo, 1 *Com. in* 3 *Epid. T.* 5. ſpeaking of theſe Kinds of Urine, ſays, that *Hippocrates* in the Caſe of *Hermocrates*, by "hinting that his Urine was "thick,

" thick, and without Hypoſtaſis, plainly intends, " that it was foul and turbid, as he here uſually " calls that Urine, which always appeared in a " crude diſturbed State, and impregnated with a flatulent Spirit, like Muſt." Since Urine, then, in which nothing ſubſides, is of the Number of turbid Urines; thick Urine alſo, deſtitute of a Sediment, is to be eſteemed a turbid Urine, which, ſays *Galen*, beſides indicating a flatulent and crude Perturbation of the whole Maſs of Blood, ſhews the Diſeaſe to be fomented by groſs Humours.

Having firſt obſerved, that turbid Urine may be either thin or thick, we proceed to enquire into the Prognoſtics, which may be drawn from turbid Urine in acute Diſeaſes. *Galen*, as we before obſerved, makes three Sorts of turbid Urine; one voided thin and clear, and afterwards becoming foul and turbid; a ſecond voided turbid, and continuing in that State; and the laſt voided foul and turbid, and afterwards growing pure and clear. Theſe laſt mentioned, *Galen de Criſ. Lib.* 1. *Cap.* 12. makes to have a leſs Degree of Purity; becauſe it ſhews, that ſomething of an unequal Turbulency remains, and that the Diſeaſe will be concocted in a ſhort Time. Worſe than the former is that Kind of turbid Urine which is diſcharged clear, and becomes turbid afterwards; becauſe ſuch a poſterior Turbation ſignifies, that Nature wants to begin its Work of Concoction of the Diſeaſe, but has not actually begun it; and therefore requires a longer Time, and a good Meaſure of Strength in the Patient, to perfect the Concoction. Of a mean Kind between the two former, according to *Galen*, is that Urine which is excreted turbid, and continues in a State of Turbation, without growing in the leaſt clear, or ſubſiding. And this Sort of turbid Urine, he ſays indicates, that the Agitation in the Blood is ſtill promoted, in order to a Con-

 coction.

coction. The ſame Author, *de Sanit. tuend. Lib.* 4. *Cap.* 4. tells us, " That if the Urine appears tur-
" bid, like that of Horſes, it ſhews the Veins to
" be replete with what they call crude Humours;
" but that Nature, however, is not idle, but hard
" at work in concocting them." Hence it appears, that turbid Urine, which becomes not clear, nor ſubſides, is better than ſuch Urine as is excreted clear, and afterwards becomes turbid. This Diſtinction, however, *Hippocrates* ſeems not to be ſenſible of, ſince he no where ſays, that this laſt mentioned is of worſe Signification than the other; but condemns, in general, thoſe Kinds of turbid Urine which never ſubſide, nor grow clear, more than the others; and pronounces them pernicious. This is proved, for Inſtance, in the Caſe of the Wife of *Philinus*, 1 *Epid. Ægr.* 4. who died; of whom it is ſaid, " Under her Convulſions great
" Quantities of Urine came from her, for the moſt
" part involuntarily; white, thick, like what is
" diſturbed by ſhaking, after long Settlement in
" the Urinal; it did not ſubſide, but in Colour
" and Thickneſs was like the Urine of a Horſe;
" ſuch was the Nature of her Urine, ſays *Hippo-*
" *crates*, as far as it appeared to me." And of the Wife of *Dromeades*, another fatal Inſtance we read, *ibid. Ægr.* 11. " That the Day after ſhe was ſeized
" with a Rigor, ſhe had a commodious Evacua-
" tion by Stool; that her Urine was thick, white,
" turbid, like Urine agitated after long Settlement,
" and did not ſubſide." The ſame turbid and not ſubſiding Urine was obſerved in the Man, who,
" being in a feveriſh State, made a Supper, and
" drank freely;" 1 *Epid. Ægr.* 12. and in *Hermocrates*, 3 *Epid. Sect.* 1. *Ægr.* 2. who both died of acute Fevers. *Galen* alſo ſeems to aſſert the ſame *Prognoſtic* from turbid Urine, in his Comment on 4 *Aph.* 70. where he ſays, " Some Sorts of Urine
" remain

" remain turbid for a long Time, others ſoon ac-
" quire a thick Sediment, and ſignify a quick So-
" lution of the Diſorder; but turbid Urine, in
" which nothing ſubſides, if the Patient be ſtrong,
" ſhews the long Duration of the Diſeaſe; if weak,
" Death." And *de Sanit. tuend. Lib.* 4. *Cap.* 2. he gives us his Deſcription and Judgment of theſe turbid Kinds of Urine, in ſo clear a manner, that we may from thence conclude this Kind of turbid Urine to be more pernicious than the reſt. " Of
" all turbid Urine, he ſays, the general Mark or
" Character in which it is judged, is a Separation
" of the thicker and groſſer from the thinner and
" more liquid Subſtance; and this Separation is
" effected in a quick or ſlow Manner, or not at all;
" if the Separation be quick, and what ſubſides be
" white, ſmooth and equal, it ſhews that Nature
" has the Dominion over the Juices, and concocts
" them. If the *Hypoſtaſis* be good, but acquired
" at ſome conſiderable Diſtance of Time, it prog-
" noſticates that Nature will prevail over the Juices
" in Length of Time. But if there be either no
" Separation at all, or what ſubſides is bad, it in-
" dicates that Nature is weak, and wants Aſſiſtance
" in concocting the Juices."

We conclude then, from the Premiſes, that turbid Urine, in which nothing ſubſides, is more pernicious than other Urine of that Kind. The ſame may be demonſtrated from the Rule of Contraries: For ſince *Galen* himſelf confeſſes that turbid Urine, which collects an *Hypoſtaſis*, is good, and ſignifies that Nature will overcome the Diſeaſe; the contrary Urine, therefore, which is deſtitute of all Sediment, and always remains turbid, muſt have a contrary Signification, and portend that the Diſeaſe will prevail over Nature: For turbid Urines alſo not to grow clear, indicates their Turbation to proceed not from the natural Heat employed in Con-

coction, but from ſome extraneous and preternatural Heat working the Ruin of the Patient. For turbid Urine, which acquires that Property from the natural Heat, terminates in Clearneſs; but turbid Urine, which is the Effect of a Turbation by the febrile Heat, always remains turbid, and collects either none, or a bad *Hypoſtaſis*.

Moreover, among the Kinds of turbid Urine, what remains turbid in the Beginning of a Diſeaſe, is worſe than the like happening in the Increaſe; at which time the natural Heat is employed in Concoction, and often cauſes a Turbation in the Urine, by filling it with Flatulencies; but, in that Caſe, the Urine in a little time depoſites a good Sediment, and becomes clear.

As to that Kind of foul or turbid Urine which is evacuated clear, and becomes turbid afterwards, whether it has a greater Degree of Pravity than the other Kinds of turbid Urine, as *Galen, de Criſ. Lib.* 1. *Cap.* 12. will have it, I am not perfectly ſatiſfied: For if by Urine becoming turbid after Evacuation, it be ſignified, as he there, and *Lib.* 4. *de Sanit. tuend. Cap.* 4. tells us, that Nature has not indeed yet begun, but is preparing to ſet about its Work of Concoction; and that by turbid Urine growiug clear, it be indicated, that Nature has actually begun a Concoction; it ſeems to follow that turbid Urine, depoſiting no Sediment, is the moſt pernicious, at leaſt in acute Diſorders, and is juſtly indeed ſo eſteemed, ſince it indicates the Preſence of a Multitude of crude and groſs Humours, which require a long Time for Nature to concoct and ſubdue; and a great Meaſure of Strength is alſo neceſſary for ſuch a Work. Hence, in weak Bodies, and violent Diſorders, ſuch Urine portends Death.

With reſpect to the Colours of Urine, the white, thin, and aqueous in acute Diſeaſes, are the worſt, becauſe,

because, as we learn from *Galen*, it is best, in bilious Diseases, for the Urine and Excrements to appear pretty much coloured. *Hippocrates*, *Lib. Prognost.* condemns the thin and fiery red Urine, as "indicating the Disease to be in an absolutely crude "State; and that if it continues long, it is to be "feared the Patient will not be able to support "himself till the Urine be concocted." And such is its *Prognostic*, because a thin and fiery red Urine is a Sign of a violent Disease, and an internal burning Heat, or vehement Inflammation, either in the Liver, Stomach, or Diaphragm.

In Inflammations of the internal Parts, and in acute Fevers, gold coloured Urine, of long Continuance, is very much to be suspected, because it indicates a high Plegmon, or Inflammation, in some one or other of the Viscera.

Black Urine, in acute Disorders, is always attended with Danger, unless it be critically discharged, or flows in a copious manner, during a Suppression of atrabilious Menses, or a plentiful Hemorrhage from the Nose. In what Cases black Urine is not to be dreaded, we have shewed before; but in acute Diseases, if it is not excreted under the Circumstance before-mentioned, it imports Danger, as indicating Plenty of adust Blood, which it will be difficult for Nature to concoct. For this Reason *Hippocrates Prognost. Lib.* 1: pronounces black Urine more destructive than the thin and fiery red, and worst in adult Persons; on the same Account he condemns black Clouds floating in Urine, as a pernicious Sign.

Thin black Urine, excreted in small Quantities, 1 *Epid. Sect.* 2. *Stat.* 3. was one of the Symptoms which attended the Beginning of a very mortal Epidemic *Causus*, or burning Fever, and portended a fatal Event.

Black Urine changing to aqueous, as in the Woman who lay ill near the cold Water, 3 *Epid.*

Sect. 2. *Ægr.* 2. is destructive. Of her it is observed by *Hippocrates*, that on the eleventh Day she voided Plenty of thin black Urine, and on the twentieth great Quantities of aqueous Urine flowed from her, on which *Galen*, in his Commentary, observes, that black Urine changed to aqueous is a mortal Sign. The Author of 1 *Prorrhet. T.* 4. writes, " That in Persons under Perturbations and " Watchings, colourless Urine, with a black Enæo- " rema, is phrenetic ;" that is, prognosticates a Phrensy ; and we may say, a Phrensy of a malignant and mortal Nature, because proceeding from a black and adust Bile.

Black and fetid Urine is observed by *Galen*, *Com. in Aph.* and *Com.* 2. *in Prognost. T.* 32. to be destructive ; and continually black, thin, and aqueous Urine, with bad Signs, portends Death ; as it happened in the Case of the Woman, 3 *Epid.* beforementioned : Of whom it is said by *Hippocrates*, at the End of his Account, " That her Urine was " perpetually black, thin, and aqueous, attended " with a Coma, Loathing, Despondency, Watch- " ing, Propensity to Anger, Anxiety, and melan- " choly Disorders of the Mind."

But the worst of all is black Urine with a black Sediment. On this Kind of Urine *Galen* passes his Judgment, *Lib.* 1. *de Crisibus*, *Cap.* 12. in the following Words : " Worst of all, he says, is Urine " black in its whole Substance, and I never knew " one Person recover after voiding such Urine ; but " it is less pernicious, if what subsides of it only " be black ; and less so still, if no more than what " floats in the middle (the Enæorema) be black, " and much less pernicious than this last, is a Cloud " only of that Colour."

Oily Kinds of Urine, particularly such as have a Fatness on the Surface, resembling a Spider's Web, are condemned by *Hippocrates* in his *Prognostics* ; and

and *Galen*, *Lib.* 4. *de Sanit. tuend.* ſays, they are pernicious, as indicating a Colliquation. Of *Pythion*, 3 *Epid. Sect.* 3. *Ægr.* 3. who lay ill near the Temple of *Hercules*, it is ſaid, " That he voided an oily " Kind of Urine." Next to black, oily Urine is the worſt, becauſe it is a Sign of an extraordinary Colliquation, and that the igneous and febrile Eſtuation prevails over the natural Heat. As it did, for Inſtance, in the aforeſaid *Pythion*, and the Woman of *Cyzicus*, *ibid. Ægr.* 14. who both voided firſt black, and ſoon after oily, or fat Urine.

No leſs pernicious is a fat Kind of Urine ſucceeding that of a thick and turbid Urine, which depoſites no Sediment, becauſe it ſignifies, that the igneous or febrile Heat, which firſt excited the Turbation, is not only undiminiſhed, but very much increaſed. Such was the Circumſtance of Urine obſerved by *Hippocrates* in the Caſe of the Wife of *Dromeades*, and of Him, who being feveriſh, ſupped and drank freely, 1 *Epid. Ægr.* 11, 12. In the latter Caſe, the Patient on the firſt Day voided red, thick, turbid Urine, which depoſited no Sediment; on the fifth and ſeventh he excreted great Quantities of a fat, oleous Urine, and died on the eleventh Day of his Illneſs. In the other Inſtance, " the Urine on " the ſecond and third Day was thick, turbid, and " had no Hypoſtaſis; on the fourth and fifth oily, " and on the ſixth the Patient died."

In like manner, Plenty of thin, aqueous Urine without Contents, no way relieving the Patient, or peccant in any manner, in acute Diſorders, is very much to be dreaded. Thus *Hippocrates*, 3 *Epid. Sect.* 3. *Stat. peſt.* deſcribing the Symptoms of an epidemic Cauſus, generally attended with a Phrenſy, and very mortal, tells us, " That the Patients diſ- " charged great Quantities of thin Urine, which " were of no Service, nor had any Relation to a " Criſis." And afterwards, ſpeaking of the ſame

Subject, he ſays, " The Urine was in vaſt Quan-
" tities, and not in Proportion to the Drink, but
" far exceeding it; and it had beſides an extraor-
" dinary Degree of Pravity, being neither thick,
" nor concocted, nor duly purged." The ſame Author, 3 *Epid. Sect.* 2. *Ægr.* 12. relating to the mortal Caſe of the Woman who lay ill in *Foro Mendacium*, ſays, that on the tenth Day ſhe voided great Quantities of Urine, which had no Hypoſtaſis. And of the ſick Woman by the cold Water, he ſays, that her Urine was always much in Quantity, black, thin, and aqueous.

Much thick, or turbid Urine, not ſubſiding, and no way beneficial, is alſo much condemned, as are generally all great Quantities of Urine, in the Beginning of acute Diſtempers, being juſtly eſteemed of no Service, becauſe at that Time nothing concocted can be excreted, nor any good Evacuation be made.

Thin Urines in ſmall Quanties, under burning Fevers, and acute Inflammations, are very bad, as indicating the Serum of the Blood to be conſumed by the fiery Heat; and if the Urine has beſides any manner of Pravity, it is ſo much the worſe; as it proved in the Caſes of the Wife of *Dromeades* before-mentioned; the young Man of *Melibœa*, 3 *Epid. Ægr. ult.* and the Daughter of *Euryanactes*, 3 *Epid. Sect.* 2. *Ægr.* 6. in the two laſt of whom, the Urine was little, thin, and oily. And in the Caſes of the Woman who lived with *Tiſamenus*, and another Woman who belonged to the Family of *Pantimides*, 3 *Epid. Sect.* 2. *Ægr.* 9. 10. the Urine was obſerved to be thin, and in ſmall Quantities. All theſe Patients before-mentioned died in a ſhort Time after the Appearance of this Symptom which we are ſpeaking of.

An utter Suppreſſion of Urine from a total Conſumption of the ſerous Humidity of the Blood, by

by the igneous and febrile Heat, or from an Extinction of all the Functions, as *Galen* expresses it, *Com.* 2. *in* 3 *Epid. T.* 4. is a fatal Prognostic in Fevers. Of *Silenus*, who lay sick of a mortal Fever, 1 *Epid. Ægr.* 2. *Hippocrates* observes, that "On "the sixth Day his Urine stopped, and that on "the seventh he voided no Urine; but that on the "eighth he made Water in small Quantities with "Pain, and a pungent Sensation." This is an Indication to us of a vehement Heat consuming the Serum of the Blood, and rendering it highly hot and acrimonious. In the Woman of *Cyzicus*, 3 *Epid. Sect.* 3. *Ægr.* 14. the Woman who was a Domestic of *Aristion*, and lay ill of a Quinsey, *ibid. Sect.* 2. *Ægr.* 7. and the young Man of *Melibœa* beforementioned, there was a Suppression of Urine a little before their Decease from an Extinction of the Faculty.

Urine little in Quantity, acrid, and of no Benefit to the Patient, is also mortal, as it is a Sign, that all the serous Humidity is consumed by the burning Heat, which affects the internal Parts, and that the Humours are inflamed; and it was observed by *Hippocrates* of *Silenus*, that before his Death he voided a small Quantity of pungent acrid Urine. And I have myself observed these small Excretions of highly acrid and vellicating Urine in my beloved Wife *Guadagnina*, and several others, labouring under a mortal burning Fever, a little before their Decease.

Urine void of Contents, and having neither Hypostasis, Enæorema, nor Cloud, is bad, unless it be occasioned through Fasting, Fatigue, Watching, or an highly bilious State of Body; in which Circumstances it is a bad Sign for the Urine to appear without Contents, as we are taught by *Galen*, *de Crif. Lib.* 1. *Cap.* 4.

Thick Urine, without a Sediment, in acute Diſtempers, is affirmed by *Galen* to be mortal.

Urine with a ſmall or a crude Sediment is bad: Such was that obſerved by *Hippocrates*, 1 *Epid. Sect.* 1. in thoſe who laboured under an epidemic Kind of ſemitertian Fever. "The Urine, he ſays, "was thin, unconcocted, colourleſs, and little in "Quantity, or elſe thick, with a ſmall Hypoſtaſis, "of no laudable Conſtitution, and depoſiting a "crude and unſeaſonable Sediment."

Galen, *Com. in* 4 *Aph.* 69. condemns thick Urine, on account of the Heavineſs of its Sediment; and the Author of the Book *de Urinis*, *Cap.* 42. tells us, that ſometimes a white and crude Humour is excreted with the Urine, and ſubſides to the Bottom like a good Hypoſtaſis. And *Galen*, *Com.* 2. *in Prognoſt.* ſays, that a copious and crude Sediment is an Indication, that the Diſeaſe is fomented by a Redundance of crude Humours, and by that means rendered difficult and dangerous; for the ſame Reaſon he abſolutely condemns a thick and groſs Hypoſtaſis, *Com. in* 4 *Aph.* 69. Of ſuch an Hypoſtaſis is *Hippocrates* to be underſtood, *Sect.* 7. *Aph.* 31. where he ſays, "That an Hypoſtaſis, with a bran-"ny Sediment (*Crimnoides*) in Fevers, indicates, "that the Diſeaſe will be of long Continuance." We have already obſerved from *Galen*, *Lib.* 1. *de Criſ. Cap.* 12. that thoſe thick Sediments, which the *Greeks* call *Crimnoides*, ſignify a great Colliquation, and therefore in acute Diſeaſes are mortal. The ſame Author, *Com. in* 7 *Aph.* 31. ſpeaking of thoſe Sediments, ſays, "It appears then by theſe "Examples," [*Silenus*, and the ſick Man in the Garden of *Dealces*] "that whenever Patients void "an Urine with this branny Sediment, if ever they "recover, it is but very ſlowly; but if the Diſeaſe "be mortal, they die in a very ſhort Time." *Galen* therefore pronounces ſuch Urine deſtructive, by hinting

hinting to us, that great Numbers who discharged are destroyed before the Disease is protracted to any considerable Length; and that whoever happen to escape, recover with much Difficulty, and not till after undergoing a long and tedious Sickness; and for this very Reason, because such a Disposition, as is the Cause of these Excretions by Urine, requires a vast deal of Concoction. *Hippocrates*, *Lib.* 1. *Prognost.* highly condemns the *Crimnoides Hypostasis*; such an *Hypostasis* had the Urine of *Silenus*, 1 *Epid. Ægr.* 2. who died on the eleventh Day; and that of the sick Person in the Garden of *Dealces*, 3 *Epid. Sect.* 1. *Ægr.* 3. in whom the Disease came not to a perfect Crisis till the fortieth Day.

We have before observed, that the Sediments resembling the Pulse called *Orobus*, the squamous, or scaly, and the furfuraceous, which the *Greeks* call by the respective Names of *Oroboides*, *Petaloides* and *Pityroides*, are mortal in acute Fevers, as proceeding from the same Colliquation, unless they are the Effects of some Disease in the Kidneys or Bladder. *Hippocrates*, in his *Prognostics*, passes his Judgment on all these Kinds of Urine in the following Words: "A *Crimnoides* (branny) *Hypostasis* in Urine, "he says, is bad; but the *Petaloides* (squamous) "worse; the white and the thin Urine have a "considerable Degree of Pravity; but the *Pity-* "*roides* (furfuraceous) is yet worse." We know these Sediments are not the Effects of a Disorder in the Kidneys, from the Presence of an actually incumbent, acute, and colliquating Fever, and the Appearance of no Sign, by which we can judge the Kidneys to be injured.

A loose, discrete Sediment is also disapproved, as it indicates Crudity; and when an *Hypostasis* of this Nature appears, we can never justly predict the Recovery of the Patient.

The ſame Judgment is to be paſſed on an unequal Sediment, according to *Hippocrates Prognoſt. Lib.* 1. where we read, " If there be an Intermiſſion, " and the Urine be ſometimes excreted pure, and at " other times depoſites a white and ſmooth Hypo- " ſtaſis, the Diſeaſe becomes the longer, and the " Patient the leſs ſecure."

A reddiſh Sediment is diſapproved by *Hippocrates, ibid.* becauſe, tho' it be in a good meaſure ſalutary, it indicates the Diſeaſe to be of long Duration. And the Author of the Book *de Urinis*, ſays, that a reddiſh Sediment ſhews a Defect of Concoction, but is no mortal Sign. A long Diſeaſe is however to be ſuſpected, and therefore ſuch a Sediment ſeems not free from Pravity, eſpecially in weak Bodies, and violent Diſeaſes, which ſoon exhauſt the natural Strength, and often before the Diſeaſe is concocted.

A black Sediment, or Hypoſtaſis, is very bad in acute Diſeaſes, and if attended with black Urine, is affirmed by *Galen* to be the worſt of all Sediments; a black Enæorema is leſs pernicious, and a black Cloud leaſt of all the three.

Of Enæorema's, the ſublime (μετέωρον) is diſapproved, as indicating a Delirium; an Inſtance of which we have in the young Woman of *Lariſſa*, 3 *Epid. Sect.* 3. *Ægr.* 12. where *Galen*, in his Commentary, ſays, that this Enæorema ſignified a Delirium, not in itſelf, but by Accident, as it was an Indication of a flatulent Blood, ſince, if there was no Flatulences in the Blood, the Enæorema would ſubſide to the Bottom of the Urinal. The Author of 1 *Prorrhet* 4. 32. 37. makes a ſublime, ſuſpended Subſtance in the Urine to portend a Delirium, and ſo much the more, ſays *Galen*, *Com.* 2. *in* 1 *Prorrhet. T.* 1. if it be attended with a Ringing of the Ears, or a Ceſſation of a Pain in the Hip, or ſome other inferior Part remote from the Viſcera.

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A black, loose, or discrete and unequal Enæorema is bad; but not so bad as a Sediment of that Character, according to the Author of *Lib. de Urinis*, supposed to be *Galen*, *Cap.* 17.

A black Cloud is condemned by *Hippocrates*, *Lib.* 2. *Prognost.* as is also a fat Substance swimming on the Surface of the Urine, because it indicates a Consumption. I have several times observed a Cloud of a circular Form, elevated near the Surface, in the Urine of those who have died phrenetic; and thence concluded such an Appearance to be a pernicious Sign in acute and turbulent Fevers. If therefore the Contents of the Urine, tho' constituted according to Nature, are by an undue Quantity of Spirit elevated to the Surface, it portends some Disorder, and that no inconsiderable one, of the Head.

To the forementioned Characters of bad Urine we may add, that Excretions of Urine not remembered, or not perceived by the Patients themselves, are also of bad Signification. Thus, 1 *Prorrhet.* 29. we read, "That a Flowing of Urine from a "sick Person, without his remembering it, is per-"nicious;" for it indicates, as *Galen* says, in his Comment on the Place, a Privation of all Sense of the natural Functions.

There remains one Thing, which highly deserves our Remembrance on this Head, and is as follows: In many very destructive Fevers, the Urine in Colour, Substance, and Contents, appears like the Urine of Persons in Health, and on that account is esteemed and pronounced laudable by the mistaken and unexperienced Physicians, tho' at the same time it portends inevitable Death, by indicating to us that the Bile, by which the Urine is coloured, has its Course wholly diverted to the Brain, or one of the Viscera; and that nothing of the noxious Humours is excreted with the Urine, which is observed

ſerved by Phyſicians to be highly deſtructive in Phrenſies, and alſo, in a Pleuriſy and Peripneumony.

CHAP. XVI.

Of Preſages from SPITS; *and firſt, what* Spit *is*; *what Parts it indicates as injur'd*; *its Differences and Cauſes.*

THOUGH whatever is thrown out from the Mouth, in any other Manner than by vomiting, is by Phyſicians called Spit, yet what is expectorated by coughing properly comes under this Denomination; and this we ſhall at preſent conſider accurately, ſince it is of great Importance in prognoſticating the Events of Diſeaſes. The Excretion by Spit then is a pituitous and mucous Excrement, provided what falls from the Brain upon the Lungs is expectorated ſimple and unmixed. But ſometimes purely bilious or purulent Spits are expectorated, and theſe are the Effects of dangerous Diſorders, ſince, according to *Galen*, they indicate ſome Indiſpoſition or Fault in the Lungs, the Thorax, the Aſpera-Arteria, the Throat, and, in a Word, in all the Inſtruments ſubſervient to Reſpiration. Spits differ from each other in reſpect of Conſiſtence, Figure, Colour, Quantity, Simplicity, Mixture, Smell and Taſte, the Eaſineſs of Expectoration, and the Alleviation or Increaſe of the Pain or Cough. With reſpect to Conſiſtence, Spits are either thin or thick, viſcid or free from Viſcidity. With reſpect to Figure, they are either flat, equal, round, frothy, bloody, or purulent. With reſpect to Colour, they are either white, pale, yellow, red, red, green, livid, black, or party-coloured. With reſpect to Quantity, they are either copious, ſcanty, or none at all. Spits are alſo ſimple or mixed. With reſpect to Smell, they are either fetid, or ſuch as have

no bad Smell. With respect to Taste, they are either insipid, sweet, salt, bitter, or acrid. With respect to the Facility or Difficulty of Expectoration, some are easily, some difficultly, and others not at all to be expectorated by Coughing. Some Spits also alleviate the Pain and Cough, whilst others augment them. And lastly, some are concocted, others crude, and others malignant.

The Causes of all these Kinds of Spit are to be carefully investigated. First then, with respect to the thin and liquid Spits: These, according to *Galen*, in *Lib. 6. Epidem.* proceed from a languid Heat of the Brain, generating an aqueous and unconcocted Excrement, which, for want of a sufficient Degree of Heat, is not inspissated when it comes to the Lungs. *Galen* affirms, that, in pleuritic Patients, a thin and liquid Spit is the Beginning of Concoction; whereas, a thick Spit is the Mark of perfect Concoction: For Spits, when maturating, become gradually thicker. Liquid Spits, when thoroughly concocted, become moderately viscid; highly viscid Spits indicate an highly intense Heat dissipating the Moistuee; by which means the Phlegm becomes thick and viscid: Spits of this Kind are the worst Signs in Pleurisies and Disorders of the Lungs; since, on Account of their firm Adhesion, they can hardly be expectorated, but often obstruct the tender pulmonary Arteries. *Galen*, in *Lib. 4. de Affect. Cap. 6.* informs us, "That this happened to *Anti-* "*pater*, a *Roman* Physician." In pleuretic or asthmatic Patients, as also such as labour under Disorders of the Lungs, thick Spit, because it cannot be expectorated, induces a Stertor, or Ebullition, and often suffocates the Patient, or produces an Empyema; but a thin phlegmatic Spit, without any Viscidity, is the Mark of a weak Heat, which does not consume and dissipate the thin Moisture. Flat and equal Spits denote that the Phlegm is simple

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and unmixed, and all its Parts equally acted on by the Heat; whereas unequal and variouſly-figur'd Spits denote the contrary. Frothy Spits, which long preſerve the Froth, proceed from a viſcid pituitous Subſtance, acted upon by an intenſe Heat. This Species of frothy Spit is juſtly condemn'd by *Galen, in Lib. de totius Morbi Tempor.* Theſe frothy Spits alſo proceed from the flatulent Spirit of the Phlegm, or an Admixture of ſome other Humour. Thus the Matter expectorated from the Lungs is ſometimes mixed with a large Quantity of Air. Accordingly *Paulus Ægineta* informs us, "That a frothy Spit is "often thrown from the Throat, on Account of "its Communication with the Lungs, which are "the principal Inſtruments of Reſpiration."

In pleuritic and peripreumonic Patients, frothy Spits proceed not from Flatulencies, but from the intenſe Heat in the Parts affected: In ſuch Patients, if the Blood appears frothy, it indicates, according to *Galen*, that the Subſtance of the Lungs is injur'd. *Hippocrates* alſo, in *Sect.* 5. *Aphor.* 13. tells us, "That a Spitting of frothy Blood indicates that the "Subſtance of the Lungs is exulcerated." *Galen*, in *Lib.* 6. *Epidem*, informs us, "That the round "Spits expectorated in Coughing, are produced by "an exceſſive Heat, which renders the Matter in "the pulmonory Veſſels thick and tenacious. Theſe Spits, in Conſequence of their glutinous Conſiſtence, acquire the Form of the Aſpera-Arteria, the Cavity of which is round. Theſe Spits, in Perſons free from Fevers, I have obſerved produced no bad Conſequences; but at laſt the Patient became phthiſical and conſumptive. *Hippocrates, in Epidem, Lib.* 6. *Sect.* 3. *Text.* 27. informs us, "That ſuch "Spits prognoſticate a Delirium;" perhaps as *Galen, in Lib.* 4. *de Locis affectis, Cap.* 8. conjectures, from the exceſſive Heat they indicate, acting upon the Parts of the Head, though of themſelves they

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can never presage a Delirium. Next to these are the Spits which in Bulk resemble Hailstones, and *Galen* observed in a certain Patient, who became phthsical, and could not be recovered. Bloody Spits proceed either from an Aperture of the Veins, which the *Greeks* call *Anastomosis*; in which Case there is neither Pain, Inflammation, nor Fever, and the Blood is thin and aqueous, and a large Quantity discharged when large Veins are ruptur'd, and a small Quantity when small Veins are broken. The same Effect may proeeed from an Erosion of the Veins, which the *Greeks* call *Diabrosis* and *Anabrosis*; and this State of the Patient is known from an uneasy Cough, without any manifest Cause; from the Blood's being at first small in Quantity, and discharged by Intervals; tho' there is sometimes a copious Discharge, when large Veins are crodded or ruptur'd; which Disorder the *Greeks* also call *Peririsis:* The Signs of this are Pain, especially if a large Quantity of Blood is discharged from the Lungs and Thorax, and the preceeding Causes of a Rupture, such as a Plethora, violent Motion, crying loudly, Falls, Spits, and the like. Bloody Spits therefore proceed from an Aperture, Erosion or Rupture of the Veins. In pleuritic Patients, bloody Spits are principally thrown up when the Nature attacks the Matter of the Disease, which she gradually attenuates. Then the Vessels being relaxed, the thinner Part of the Matter is conveyed to the internal Parts. These Signs, together with a Cessation of the Cough, and an Expectoration of the Spit, indicate the Beginning of the Concoction; at which Time the Spits are mixed with Phlegm. These Pleurisies, according to *Galen, in 6 Epid. Com.* 3. are of all others the most mild and gentle. But the Author of *Coac. Præsag.* in *Text.* 390. in pleuritic Patients greatly condems very bloody Spit, which has the Appearance of pure Blood, because it denotes

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an Erosion of the Vessels by an acrid Bile, which attenuates the Blood; or a Rupture of the Veins, by a violent Compression of the Thorax, which in Consequence of the Inflammation can expectorate nothing. *Hippocrates*, in *Sect.* 7. *Aph.* 15. informs us, " That purulent Spits, after a Spitting of Blood, " indicates a Phthisis; and in pleuritic and perymnmonic Patients, such Spits prognosticate a Suppuration or an Empyema, which are succeeded by a Consumption; for when the Matter is not evacuated in fourteen Days, it either suffocates the Patient, or becomes more putrid, and is converted into Pus; the Signs of which are a supervening or an increas'd Horror, an Augmentation of the Fever, and a Sense of Weight in the Parts affected. Thus *Hippocrates*, in *Sect.* 2. *Aph.* 47. tells us, " That Pains and Fevers " happen when Pus is generating, rather than after " it is form'd." But we shall afterwards treat more accurately of purulent Spits. As for the Colour of Spits, they are white when the Matter expectorated is pituitous and purulent. In pituitous Disorders such Spits are beneficial, but in those of the bilious Kind, they are so far from being serviceable, that they afford a bad Prognostic; since they indicate that none of the Matter producing a Pleurisy is expectorated. *Galen*, in 6 *Epidem*, *Com.* 4. *Text.* 4. observes, " That yellow, pale, and black Spits arise trom a Redundance of Bile of these Colours. In *Lib.* 2. *de Loc. Affect. Cap.* 9. the same Author describes the Colours of Spits in the following Manner: " We have shewn, says he, that all Inflammations " proceed from an Afflux of Blood to the Part af- " fected. Hence, if the Blood is bilious, the Spit " will be yellow or pale; if the Blood is pituitous " and frothy, the Spit will be white; if it is melan- " cholic, the Spit will be black or livid; but if the " Blood is not tainted in any of these Manners, the " Spit will be red. In a Pleurisy the Spit is often

" bilious

" bilious, whereas in a Peripneumony, it is generally " pituitous." According to *Galen*, party-coloured Spits are Indications of various Diſorders, and prognoſticate a dangerous Diſeaſe. Copious Spits denote a Redundance of Humours, and if they are eaſily expectorated, white and thick, they indicate that the Phlegmon is concocted and ſubdued; but if they are purulant, and if the Pus in them is white, ſmooth, equal, and not fetid, they denote a Suppuration of the Phlegmon by an Excretion of the Pus. If they are bilious, green, livid, or black, they indicate that the Diſeaſe is crude, and ſo exceſſively malignant, that it can hardly be overcome by Nature. If Spits, though concocted, are yet ſo ſmall and ſcanty as not to correſpond to the State and and Condition of the Diſeaſe, they are not beneficial. Thus the Author of *Coac Præſag. Text.* 416. tells us, " That ſuch Spits are juſtly to be dreaded in " a Peripneumony." Spits of this Kind were by *Hippocrates*, as we are told *in Epidem, Lib.* 7. *Text.* 58. obſerved in the Wife of *Euxenius*. In pleuritic Patients, and thoſe labouring under Diſorders of the Lungs, it is an highly dangerous Sign when no Spits are expectorated, either in the Beginning of the Diſeaſe or afterwards. A total Want of Expectoration in Pleuriſies, indicates the ſame Thing which aqueous Urine doth in other Fevers, namely, the great Crudity of the Diſeaſe, according to *Galen*, *in Lib.* 1. *de Criſibus*, *Cap.* 18. In *Sect.* 1. *Aphor.* 12. we are told, " That a Want of Expectoration indicates, that the Inflammation or Phlegmon is not to be concocted without Difficulty and Length of Time; and in *Lib. de Conſtitut. Art. Medecid. Cap.* 16. he ſays, " That a Want of Expectoration is a " fatal Sign, partly becauſe it indicates that the " Defluxion is pent up by the Inflammation, and " partly becauſe by that Inflammation all the inter- " nal Parts are corrupted." Thus the Author of

Coac.

Coac. Præsag. Text. 381. justly affirms, "That dry "Pleurisies, in which nothing is expectorated, are "all others the most dangerous." *Galen* also, in *Lib.* 2. *de Crisibus, Cap.* 70. tells us, "That when "the Inflammation is so violent as totally to con-"fine the Defluxion within itself, it produces mor-"tal Disorders, which are called ἄπτυςοι, that is, "Diseases without Expectoration." And in *Lib. de totius Morbi Tempor. Cap.* 16. he asserts, "That "a Want of Expectoration, accompanied with in-"tense Pain, and Difficulty of Breathing, is a "mortal Sign." *Galen* also, *in Lib. de Constitut. Art. Med.* observes, "That, in these Disorders, it is no less dangerous a Sign, when the Spit is suppressed without an evident Cause;" which, according to the same Author, in 2 *Prognost.* proceeds either from a Lentor or Viscidity of the Humour, a Relaxation of the Membrane which contains the Lungs, or the Weakness of the Patient. The Author of *Prorrhet. in Lib.* 1. *Text.* 7. tells us, "That "if a Pain of the Side, that is a Pleurisy, after "bilious Spits, disappears without any maaifest Rea-"son, the Patient becomes mad and furious." *Galen*, "*in Comment.* affirms, "That this does not always "happen, but only when the bilious Humour is "translated to the Head." In consumptive and empyematic Patients, nothing is worse than a Suppression of the Spit; since in the latter, it denotes a Phthisis or Death, and in the former unavoidable Death. *Galen*, in *Lib.* 7. *Aphorism* 16. says, "That "consumptive and extenuated Persons live so long "as they can cleanse and purge their Lungs by "Coughing, but when the Pus remains within, the "Patients are suddenly suffocated, on Account of "the Obstruction of the Vessels and Passages, sub-"servient to Respiration. Thus *Hippocrates, in Sect.* 7. *Aph.* 17. informs us, "That a Spitting of "Pus brings on a Phtisis; but when the Pus is re-

"tained

" tained the Patient dies." The Matter which is not thrown up by the Lungs, but in Consequence of a Plethora is collected, and becomes hot in the Throat, denotes a Redundance and Lentor of the Humours, and a Weakness of the expulsive Faculty: But of this we shall afterwards treat more accurately. *Galen, in Lib. de Constitut. Ord. Med.* informs us, " That it is a good Sign when Patients labouring under a Pleurisy, a Perip-" neumony, an Empyema, or a Consumption, " expectorate easily, and in the Beginnings of their " respective Disorders." This, in pleuritic and peripneumonic Patients, indicates, that Nature has begun the Concoction, and that the Spits have no malignant Quality: And from this Symptom in empyematic Patients, it is to be hoped that the Pus shall be expectorated so as to prevent a Consumption. *Hippocrates, in* 2 *Prognost.* tells us, " That Expec-" toration ought to be soon and quickly made in all " Pains of the Lungs and Sides:" For this indicates that the vital Faculty and the animal Faculty in the Brain are strong; that the Muscles and Passages subservient to Expiration are neither obstructed nor compress'd, and that the Matter is neither so tough and viscid, nor so thin and serous, but that it may be raised and expectorated. Unmix'd Spits, except those of the pituitous Kind, are, according to *Galen*, in *Lib. de Humoribus*, such as have no aqueous Moisture mixed with them, especially those in which the intense Heat has consumed all the Humidity. Hence these Spits indicate an intense internal Heat, and a dangerous Disease, because they are highly malignant, and can hardly be expectorated. *Hippocrates*, in 2 *Prognost.* condemns unmixed Spits, especially those of a black Colour. Spits on the contrary appear mixed with an aqueous Moisture, when this latter is not dissipated by the febrile Heat, or when there is a Redundance of pituitous Humous. But

the party-coloured Spits, which are mixed with other Humours, are ſtill worſe, ſince they denote a Complication of Diſorders. Fetid and ill-ſmelled Spits alſo denote an exceſſive Putrefaction of the Humour which produces them. Thus *Galen*, in *Lib. de totius Morbi Temporibus*, *Cap.* 6. greatly condemns highly fetid Spits, in pleuritic and peripneumonic Patients. And *Hippocrates*, in *Coac. Præſag. Text.* 406, 409. informs us, "That ſuch Spits "prove mortal to thoſe who labour under an Empyema. Crude Phlegm produces inſipid Spit, concocted Phlegm ſweet Spit, and Phlegm mixed with Blood, bloody Spit. The Phlegm is rendered ſalt, when it is too much agitated and parched by the Heat; or, according to the *Arabians*, when it is mixed with hot Vapours or bilious Humours. The Spits are rendered acrid by a yellow, reddiſh, and æruginous Bile; and acid by a melancholic Humour. Thoſe Spits are accounted beſt which alleviate Pain, becauſe they denote a laudable Evacuation of the Humours, according to *Hippocrates* in *Sect.* 1. *Aphor.* 25. where we are told, "That an Evacuation of "thoſe Humours which ought to be eliminated "proves beneficial." Thus, in *Sect.* 2. *Aph.* 2. he tells us, "That Sleep, which terminates a Delirium, "is good, but bad if it does not." In Pains of the Sides and Lungs, Spits which afford no Relief are uſeleſs; and ſtill worſe are thoſe which augment the Pain. If together with the Pain, theſe latter have a bad Quality, they prognoſticate Death. If the former, though not of a bad Quality, do not alleviate the Pain, they preſage a Suppuration. Thus *Hippocrates*, *in Prognoſt. Lib.* 2. *Text.* 52. tells us, "That Pains in thoſe Parts, which neither "yield to Expectoration, Purging, Veneſection, "and the Uſe of proper Medicines and a due Re-"gimen, prognoſticate a Suppuration; but all thoſe "Expectorations are bad which do not alleviate the

Pain;

" Pain; and ſuch as are black are worſt of all: But " thoſe which alleviate Pain are of a better Kind." In like Manner, thoſe Spits are beſt which allay the Cough, becauſe they indicate that the Humour exciting the Cough and Inflammation is commodiouſly evacuated; for either through a Fault of the Matter lodg'd in the Lungs, or a Weakneſs of the Inſtruments, or expulſive Faculty, a thick Matter is with great Difficulty raiſed, and ſo obſtructs the narrow Paſſages, as to ſuffocate ſome Patients. An highly viſcid Humour can hardly be detach'd from the Parts to which it adheres, but like Glew obſtructs the pulmonary Ducts. Too thin an Humour is alſo expectorated with great Difficulty. Theſe Humours create a violent Cough, which is removed or alleviated by ſuch as are moderately thick, neither too viſcid nor too thin. Thus *Hippocrates, in Prognoſt.* condemns Spits which excite a violent Cough. *Galen, in* 2 *Prognoſt. Text.* 45. informs us, " That " concocted Spits, in Pleuriſies and Peripeumonies, " are white, ſmooth, neither very thick nor very " thin, ſuch as are eaſily expectorated, and of an " equal Conſiſtence; and ſuch Spits are produced " when Nature is overcoming the Diſeaſe." In Empyemas, according to *Hippocrates, in Prognoſt.* concocted Spits are white, pure, and without any fetid Smell. In the ſame *Prognoſt.* he greatly commends Spits mixed with yellow Bile in pleuritic Patients, becauſe they indicate that a large Quantity of the Matrer exciting the Inflammation is duly evacuated. On the contrary, Spits which are too thick and viſcid, or too thin and crude, denote that Nature has not as yet begun the Work of Concoction. Malignant Spits are ſuch as are unmixed, yellow, reddiſh, green, livid, black, party-colour'd, intenſely fetid, ſuch as increaſe the Pain and Cough, or are attended with a Difficulty of Reſpiration. Having thus inveſtigated the Cauſes of the various

Spits, we now come to treat of ſuch Spits as are ſalutary, and prognoſticate Revovery.

CHAP. XVII.

Of ſuch SPITS *as are ſalutary, and prognoſticate Recovery.*

IN conſidering ſuch Spits as are ſalutary, and prognoſticate Recovery, we ſhall firſt enquire Kind of Spits ought to be expectorated by thoſe who either labour under, or are free from a Fever, a Cough, a difficult Reſpiration, or Pain of any Kind. Secondly, examine what Kind of Spits ought to be evacuated in Pleuriſies and Peripneumonies. And Thirdly, What Kind of Spits are expectorated by thoſe who labour under an Empyema. In Diſorders then of the Throat, not attended with an Inflammation and Fever, the beſt Spits are ſuch as are white, ſmooth, equal, moderately thick, not too viſcid, tainted with no bad Colour, ſuch as yellow, pale, reddiſh, green, livid, or black; for *Galen*, *in Lib.* 4. *de Loc. Affect. Cap.* 8. greatly condemns Spits ting'd with any bad, and eſpecially with a yellow Colour: But of theſe we ſhall treat more accurately in the following Chapter. Thoſe Spits are alſo good which are expectorated eaſily, and without much Coughing, and which allay the Cough and Difficulty of Reſpiration. In pleuritic and peripneumonic Patients, thoſe Spits are ſalutary which, according to *Galen*, in *Lib.* 1. *de Criſibus*, *Cap.* 7. greatly reſemble thoſe of ſound and healthy Perſons; for when the Parts of the Breaſt and Lungs are greatly injured, the Spit muſt neceſſarily be unlike that of ſound Perſons. But Spits reſembling thoſe of ſound Perſons, are only expectorated in the Height of the Diſeaſe, when the Matter is perfectly concocted. Hence *Galen*, in 1 *Aphor. Sect.* 12.

 ſays,

ſays, " That concocted Spits are white, ſmooth, " equal, neither too thick nor too thin, and ſuch " as are quickly and eaſily expectorated." The ſame Author, in *Lib. 6. Epidem, Text.* 44. affirms, " That in pleuritic and peripneumonic Patients, it " is a ſalutary Sign to expectorate ſome Matter in " the Beginning of the Diſeaſe, ſince this denotes " the Beginning of Concoction; becauſe when a " thin Matter is thrown up, a moderate Concoc- " tion is indicated; but a duly thick Matter is the " Sign of a perfect Concoction." And in *Aphor.* 1. he ſays, " That in theſe Diſorders, a total Want of " Expectoration is a Sign that the Matter of the " Diſeaſe is highly crude; that the Beginning of " Concoction conſiſts in expectorating a thin Mat- " ter, which, when it becomes thicker, denotes a " greater Concoction; whereas that which is ſuffi- " ciently thick, ſmooth, equal, and eaſily evacu- " ated, indicates a perfect Concoction." Hence, as we have already obſerved, thoſe Spits are beſt which are white, ſmooth, equal, and eaſily expectorated. *Hippocrates*, on the 27th Day, obſerved Spits of this Kind in *Anaxion*, as we are told, in *Epidem. Lib.* 3. *Ægr.* 8. This may perhaps ſeem falſe, becauſe *Hippocrates*, in *Prognoſt.* ſays, " That if the Spit " appears mixed with yellow Bile, Expectoration " is highly neceſſary." And a little after, he ſub- joins, " A yellow Spit, mixed with a ſmall Quan- " tity of Blood, expectorated in the Beginning, " is a ſalutary Sign in Diſorders of the Lungs." The Author alſo of *Coac. Præſag. Text* 386. affirms, " That a coloured Spit is beneficial in Pleuriſies." And in *Text* 390. it is ſaid, " That in all Pleuriſies " and Peripneumonies, a Spit ſoon and eaſily ex- " pectorated, and mixed with a yellow Matter, is " an excellent Sign." Hence white Spits will not only be good, but alſo ſuch as are yellow, pale, bloody, and mixed. This indeed is true, though

not in the State, but in the Beginning and Augmentation of the Diſeaſe, becauſe at that Time theſe Spits denote that an Inflammation is forming by yellow Bile; which, according to *Galen*, is leſs dangerous than that excited by any of the reſt of the Humours; as alſo, becauſe ſuch Spits denote that ſome of the Humour producing the Inflammation is evacuated. Such Spits are therefore beneficial in the Beginning and Augmentation of Diſeaſes; but, according to *Hippocrates*, in *Coac. Præſag. Text* 385, and 390. they are leſs ſafe Signs when they appear later, becauſe they denote a ſlow Concoction, and the Length of the Diſeaſe, which is never free from Danger. They are not however mortal Signs, but preſage the Length of the Diſeaſe; neither are they entirely uſeleſs, ſince they denote not only that ſome of the Humour creating the Inflammation is evacuated, but alſo that the Inflammation is milder, leſs malignant, and more ſafe, than that excited by other Humours. Hence it is, that neither green, nor black, nor party-coloured Spits are good, ſince they denote that the Inflammation is produced by highly peccant Humours; and for the ſame Reaſon black and green Spits, mived with yellow or bloody Matter, are bad. Thoſe Spits are alſo good, which, beſides the before enumerated Marks, are alſo eaſily and quickly expectorated. Thus *Hippocrates* in *Lib.* 2. *Prognoſt. Text.* 45. tells us, "That in all Diſorders about the Lungs and Ribs, a quick and expeditious Expectoration is neceſſary." A ſpeedy Expectoration is when it appears within three or four Days; and if the Matter is good, it denotes that the Diſeaſe will be ſhort, and free from Danger, according to *Galen*, in *Lib. Aphoriſm*, in *Lib.* 1. *de Criſibus*, *Com.* 3. *Text.* 18. and in 6 *Epidem. Com.* 3. *Text.* 79. But copious and well concocted Spits, on a critical Day, are excellent Signs, and if they remove the Pain, Cough, and Fever, they are laud-

able

able and truly critical Spits." *Hippocrates*, in *Epidem*, *Lib.* 3. *Ægr.* 8. ſays of *Anaxion*, " On the " ſeventeenth Day he began to expectorate a ſmall " Quantity of concocted Matter, and was relieved. " On the twenty-ſeventh his Fever returned, he " cough'd, expectorated a large Quantity of con- " cocted Matter, his Urine had a copious white " Sediment, his Thirſt was removed, and he ſlept " ſoundly." We ſhall alſo add, that thoſe Spits are good which appear with other laudable Evacuations. In empyematic Patients, *Hippocrates*, *in Lib.* 2. *Prognoſt.* tells us, " That the beſt Spits are white, " ſmooth, all of a Colour, and expectorated with- " out Pain or violent coughing." Copious Spits, which remove the Fever, Cough, and difficult Reſpiration, are alſo good: But of theſe we ſhall afterwards treat more accurately.

CHAP. XVIII.

Of ſuch SPITS *as are bad, and prognoſticate Death.*

WE now come to conſider bad Spits, and ſuch as prognoſticate Death in thoſe who labour under no Diſorder, beginning with Spits of the pituitous Kind. Theſe are thought bad Signs when they fall for a long Time from the Head upon the Lungs, when they are too thin, or too thick and viſcid, when they are too copious, of a round Figure, and of a ſaline or acrid Taſte. The too thin Spits create a violent Cough, and ſuch as are too thick, by obſtructing the Paſſages of Reſpiration, induce a Danger of Suffocation. Viſcid Spits alſo produce the ſame Effect, by adhering too long to the Bronchia of the Lungs. Saline and acrid Spits, by corroding the Arteries, bring on bloody Spits, then a ſpitting of Pus, and laſt of all a Phthiſis. Round Spits, which we have ſhewn to proceed from

a thick tenacious Phlegm, and an intenſe Heat, indicate that the Perſons are greatly diſpoſed to a Phthiſis. *Galen*, in 6 *Epidem*, informs us, " That " he has obſerved ſuch Spits in Perſons free from a Fever, all of whom however afterwards became phthiſical and conſumptive." And in *Lib.* 4. *de Loc. affect. Cap.* 8. he ſays, " He has ſeen ſome " Spits like Hailſtones, and that the Perſons who " expectorated them became phthiſical." Bilious Spits, in Perſons diſpoſed to a Phthiſis, are alſo greatly condemned by *Galen*. Such Spits are known either from their yellow, pale, or reddiſh Colour, or from their bitter acrid Taſte. By theſe Colours we manifeſtly diſcover them to be bilious, becauſe, according to *Galen*, in *Lib.* 2. *de Locis affectis*, *Cap.* 10. a yellow and pale Colour eſpecially denote a bitter Bile. The Taſte is not ſo certain a Mark, becauſe it may be obtunded by an Admixture of Phlegm. Hence the moſt ſkilful Phyſicians are ſometimes deceived, and imagine that no bilious Humour is lodg'd in the Lungs, becauſe the Spits, though yellow, pale, or reddiſh, are not acrid and bitter; but in ſuch Patients, the Lungs being corroded by bilious Humours, bloody or purulent Spits are afterwards diſcharged, and a Conſumption brought on. Thus *Galen*, in *Lib.* 4. *de Locis affectis*, ſpeaks in the following Manner: " A certain Man " ſuddenly ſpit up an Humour, whoſe Colour " greatly reſembled that of liquid Bile, which is an " intermediate Colour between yellow and white; " but this Matter, the Quantity of which was daily " increaſed, had no Degree of Acrimony: Then a " gentle Fever ariſing, the Patient began to be " conſumptive, and expectorated a purulent Matter. " About four Months after he ſpit a ſmall Quantity " of Blood, with Pus: And thus, the Fever increa- " ſing, he was gradually more waſted: Again and " and again he expectorated Pus, ſo that he diſ-

" charged

" charged a large Quantity of Pus. Thus the " Fever increaſing, and his Strength being gradually " exhauſted, he died of a Conſumption. I ſaw " Man almoſt in the ſame Condition for ſix Months, " and another labouring under the ſame Diſorder " a longer Time. The firſt of theſe Patients, in " the Beginning, ſeemed to ail nothing; but was " at laſt reduced to a deplorable State. When I " ſaw the ſecond and third, and diſcovered their " Diſorder, I endeavoured by proper Remedies to " preſerve them, but I could never preſerve either " them nor any other in their Condition; for when " they were at the Point of Death, they ſpit up " ſome putrid Parts of their Lungs." It is ſurpriſing how theſe Spits, which have no Acrimony, come to infect the Lungs; but it is ſtill more ſurpriſing, that pituitous Spits, entirely free from an acrid, bitter, and ſaline Taſte, ſhould contaminate the Lungs. This Infection of the Lungs then happens either becauſe the bilious Humour remains within the Lungs, and adhering to their Bronchia, corrodes them, or becauſe the Phlegm, by growing putrid, acquires an Acrimony which corrodes and putrifies the Lungs. Perhaps for this Reaſon it is, that the Air, infected and rendered highly acrid by a phthſical Contagion, infects the Lungs of thoſe who breath it. The Reaſon why Perſons are often brought into a Conſumption by yellow or pale Spits, entirely free from an acrid, bitter, or ſaline Taſte, is, becauſe in Conſequence of the Mixture of a pituitous Humour with the Spit, the Taſte is more eaſily concealed and diſguiſed than the Colour; and an highly acrid and putrid Humour falls on the Lungs, and corrodes them. Thus pale and yellow Spits indicate a large Collection of bilious Humours in the Lungs, by which they are corroded, putrified, and Conſumptions brought on. Black and melancholic Spits are alſo exceſſively bad, ſince, according

to

to *Galen*, in *Lib. de Conſtit. Art. Med. Cap.* 16. a predominant melancholic Humour is of all others the worſt, not only becauſe it is of a malignat Quality, corrodes greatly, and is concocted and evacuated with Difficulty, but alſo becauſe it is an Indication of the exceſſive Heat by which it is generated. Theſe are frequently ſucceeded by bloody Spits, which are more to be dreaded in ſound than in pleuritic Patients. Thus *Hippocrates*, in *Sect.* 4. *Aph.* 25. tells us, "That every Diſcharge of Blood "from the Mouth is bad." Blood thrown up in coughing, by Perſons who are not pleuritic, is always to be dreaded, though Death does not always ſucceed ſuch a Symptom, eſpecially when the Blood falling from the Head, and entering the Fauces, is thrown up in coughing. Thus, after a quartan Fever, I in coughing expectorated large Quantities of Blood, which Excretion critically freed me from my Fever. But when the Blood does not come from the Head, but from the Breaſt and Lungs, there is Danger of an approaching Phthiſis, though *Galen*, in *Lib.* 5. *Meth. Medend.* informs us, "That he cur'd a *Roman* Lady and a young "Man of a Spitting of Blood, and all others, who, "on the firſt Day of their Diſorder, entruſted the "Care of their Recovery to him, but none of thoſe "who applied to him after ſome Days, or in whom "the Phlegmon was ſo violent, that their Urine "was like that of a feveriſh Patient, could be pre-"ſerved." Hence *Hippocrates*, in *Sect.* 7. *Aph.* 15. juſtly obſerved, "That an Expectoration of "Pus ſucceeding a Spitting of Blood is bad." And *Galen*, in *Aph.* 7. affirms, "That every Spitting of "Blood is not malignant, but only that which is "ſucceeded by an Expectoration of Pus, which "brings on a Phthiſis." Thus *Hippocrates*, in *Sect.* 7. *Aph.* 16. tells us, "That a Spitting of Pus "is ſucceeded by a Phthiſis." Hence it is obvious, that bloody Spits ſent from the Breaſt and Lungs,

and ſucceeded by an Expectoration of Pus, are mortal Signs. Theſe Spits are alſo not only uſeleſs, but alſo afford a bad Prognoſtic, which being copious, neither alleviate the Pain, the Cough, nor the Difficulty of Reſpiration: In ſuch Patients then theſe Spits are mortal. In pleuritic and peripneumonic Patients thoſe Spits are bad, and prognoſticate Death, which, after the Beginning, are either too thin or too thick, viſcid, frothy, round, copious, affording no Relief, and ſcanty. It is alſo bad when there is no Expectoration, or when it is ſuppreſs'd, when the Spits are frequent, white, yellow, pale, reddiſh, green, æruginous, black, party-colour'd, fetid, unmix'd, porraceous, dark-coloured, livid, brought up with Difficulty, and a ſtertor and preternatural Heat in the Throat, and which do not alleviate the Cough, Pain, and Difficulty of Reſpiration. But the moſt malignant and fatal of all Spits, are thoſe which augment the Cough, Pain, and Difficulty of Reſpiration, and which not only excite, but alſo augment the Fever. Very thin, thick, and viſcid Spits, which denote the crude State of the Diſeaſe, are not thought dangerous in the Beginning, becauſe in Proceſs of Time they may be concocted; but if they appear after many Days without any Concoction, they are dangerous Signs. Very frothy Spits are alſo condemn'd, eſpecially if they are unmixed, bilious, reddiſh, green, livid, or black; for we have elſewhere ſhewn, that theſe proceed from an immoderate Heat, either parching or colliquating the Humours. Whitiſh Spits, and thoſe of the pituitous Kind, agitated by the Breath, are not ſo dangerous. For this Reaſon Phlegm thrown up from the Lungs is generally frothy, in conſequence of the large Quantity of Blood it contains. In peripneumonic Patients, a frothy Blood is generally expectorated. Thus the Author of *Coac. Præſag. Text.* 415. tells us, "That in a Pain of the right "Hypochondrium, a frothy Blood thrown up from

"the

" the Liver is a mortal Sign." Round Spits are alſo greatly condemned, becauſe they denote an intenſe, internal Heat, by which the Moiſture is diſſipated. When this Heat ſeizes the Head, a Delirium is brought on, which *Hippocrates*, in 6 *Epidem. Sect.* 3. *Text.* 27. and *Sect.* 6. *Text.* 21. ſeems to have inſinuated. Round Spits in Diſeaſes of the Sides prognoſticate Death, according to the Author of *Coac. Præſag.* in *Text.* 319. But *Hippocrates* in *Prognoſt.* more juſtly affirmed, " That round and white Spits were " uſeleſs in Pleuriſies." Copious bad Spits are alſo very bad Prognoſtics, eſpecially if they appear on a critical Day, and afford no Relief. Scanty Spits are alſo condemned, becauſe they are not ſufficient to evacuate the Humour which excites the Inflammation, eſpecially if they are crude, and expectorated with great Difficulty. Concerning theſe, *Hippocrates*, in 1 *Epidem. Sect.* 1. ſpeaks in the following manner: " They coughed, and with Difficulty " expectorated a ſmall Quantity of concocted Mat- " ter. But thoſe who were worſt had their Spits " perpetually crude, without the ſmalleſt Signs of " Concoction." In pleuritic Patients 'tis no leſs dangerous a Sign to expectorate nothing, ſince, as we have already obſerved, it denotes, that the Diſeaſe is highly crude; for, according to *Galen*, *in Lib.* 2. *de Criſibus*, *Cap.* 10. when the Inflammation is violent, and detains the Defluxion as it were in itſelf, it produces mortal Diſorders, called ἄπτυσοι, that is, without Spitting. And *in Lib. de Conſtit. Art. Med.* he ſays, that a total Want of Expectoration is a fatal Sign, partly becauſe it indicates, that the Defluxion is pent up by the Inflammation; and partly becauſe the Defluxion will by that means be corrupted. *Galen*, *in Lib.* 1. *Aph.* 10. informs us, that ſuch an Inflammation prognoſticates the Length of the Diſeaſe. Thus the Author of *Coac. Præſag. in Text.* 381. ſays, that dry Pleuriſies, in which nothing

nothing is expectorated, are of all others the most dangerous. The Author of *Prorrhet. in Lib.* 1. *Text.* 97. says, that bilious Spits, begun and disappearing without a manifest Cause, prognosticate a Delirium in pleuritic Patients. And *Galen*, *in Lib. de Const. Art. Med. Cap.* 16. informs us, that in such Patients a Suppression of the Spits portends speedy Death. *Hippocrates*, *in Sect.* 7. *Aph.* 16. informs us, that phthisical Patients live so long as they can expectorate, but die when the Spit is retained. In 1 *Prorrhet. Text.* 6. we are told, that frequent Spits not expectorated by Coughing, and attended with some other phrenetic Sign, prognosticate a Phrenitis; and a little after, in *Text.* 12. the Author greatly condemns frequent Spits in phrenetic Patients; and justly, because, according to *Galen*, they are Signs of an Indisposition, that is, a Repletion of the Brain: And afterwards, in *Text.* 31. he tells us, that frequent Spitting, with Refrigeration, prognosticates a Vomiting of black Matter, which is an highly fatal Sign. White and pituitous Spits are also unprofitable in bilious Diseases, according to *Hippocrates in* 2 *Prognost. Text.* 46. White, glutinous, and round Spits are also bad, because they indicate, that nothing of the Humour, which excites the Inflammation, is evacuated, which, in bilious Inflammations, is a very unlucky Sign.

Among the *Bassamans* and *Morosticans*, some Years ago, pestilential Pleurisies raged, which in seven Days cut of the Patients. In these Pleurisies the Spit expectorated was pituitous and white; and a Physician, little acquainted with the Doctrine of *Galen*, from such Spits concluded his Patients free from Danger; for he was ignorant that these white Spits indicated, that none of the Humour, which excited the Inflammation, was evacuated; and that the Disease was crude, and highly dangerous. This was observed by *Hippocrates*, in the Wife of *Euxe-*

nius,

nius, *in Lib.* 7. *Epidem. Text.* 58. who died of a Pleurisy; for she expectorated a small Quantity of white, thin Spit. Yellow, pale, and bloody Spits with a small Quantity spit in them, appearing after the Beginning, indicate, that the Disease is dubious, and consequently dangerous. On the contrary, the Spits which appear in the Beginning, as we have already shewn, indicate, that the Disease will be easily terminated. Thus *Hippocrates*, in 2 *Prognost.* tells us, " That long after the Beginning of the " Pain, an Expectoration of yellow or reddish " Matter is a bad Sign;" and a little after he subjoins: " Such Spits appearing on the seventh Day, " or after it, indicate the Danger of the Disease." The same is prognosticated by Spits which are pale, reddish, green, dark-coloured, livid, or black. Green æruginous Spits indicate an intense Heat, and a Redundance of æruginous Bile. *Hippocrates*, in *Prognost.* greatly condemns green Spits. And *Galen*, *in Lib. de tot. Morb. Temp.* says, that Spits of a very dark Colour are highly fatal Signs. Livid Spits are also highly dangerous, because they are produced by a moderately black Bile, or the Extinction of the native Heat. For this Reason the Author of *Coac. Præsag. Text.* 390. greatly condemns them in the Beginning of Diseases. Black Spits are of all others the worst, because, according to *Galen*, in *Lib.* 1. *de Crisibus*, they proceed either from an excessive Heat, or a Refrigeration, in consequence of the Extinction of the native Heat. For this Reason *Galen* justly affirmed, that they denote a violent Disease; and in *Lib.* 1. *de Crisibus*, that they prognosticate Death. The Author of *Coac. Præsag. Text.* 390. and 40. affirms, " That they " who expectorate black Matter, are in a dange- " rous Condition." And *Hippocrates*, *in Lib.* 3. *de Morbis*, *Text.* 45. affirms, that they who with the Saliva spit up a black grumous Blood, die on the

seventh

ſeventh Day. Parti-coloured Spits ſeem to be no leſs dangerous, becauſe they denote a Complication of Diſorders. Hence *Hippocrates* affirms, that ſuch Spits, accompanied with an acute Pain, are mortal. Unmixed Spits are alſo perpetually bad, becauſe, according to *Hippocrates*, good Spits are mixed. Thoſe of the unmixed Kind are bad, becauſe they proceed from a Diſſipation of the Moiſture, by means of intenſe Heat. Yellow, unmixed, reddiſh, æruginous, dark-coloured, livid, and eſpecially black Spits, are condemned by *Hippocrates*, in 2 *Prognoſt.* becauſe they prognoſticate deſperate Diſeaſes. Fetid Spits are alſo greatly condemned in acute Diſeaſes, becauſe they indicate an exceſſive Putrefaction. *Hippocrates*, in *Sect.* 5. *Aph.* 11. obſerves, that the fetid Smell in Spits diſtinguiſhes ſuch as are conſumptive, from ſuch as are not; and that the fetid Spits of the former prove mortal. Thoſe Spits are alſo bad, which are with Difficulty expectorated. Thus *Hippocrates*, *in Epidem. Sect.* 1. tells us of certain Patients, "That they coughed, and with "Difficulty expectorated a ſmall Quantity of con-"coected Matter." Theſe Spits are alſo bad, which are hot in the Throat, and induce a Stertor. Thus *Hippocrates*, in 2 *Prognoſt. Text.* 48. tells us, "That "the Spit, which is not thrown up by the Lungs, "but is formed in the Throat, in conſequence of "Plenitude, is bad." No leſs dangerous are thoſe Spits, which, inſtead of alleviating, excite and augment the Cough, according to *Hippocrates*, in 1 *Prognoſt. Text.* 52. where Spits, which do not alleviate the Pain, are equally condemned. But theſe Marks of Spits are not ſufficient for prognoſticating, unleſs, as *Galen* informs us, we alſo accurately obſerve other Circumſtances. Thoſe Spits are alſo bad, which, tho' copious, neither remove the Cough, the Fever, nor the Difficulty of Reſpiration. Thoſe Spits, which appear with other bad Signs on a critical

critical Day, and render the Patient worſe, are abſolutely mortal. Having conſidered the Spits of pleuritic and peripneumonic Patients, we now come to conſider thoſe of Perſons labouring under an Empyema.

CHAP. XIX.

Predictions from a Suppuration of the LUNGS.

"THOSE who have a Collection of Pus, ſays "*Galen, Com.* 2. *in Prognoſt.* whether within "the Body, or in any Part affected with an Inflam-"mation, and even after an Eruption, we may "properly enough call *Empyi*," that is, purulent "or ſuppurated; "but Phyſicians uſually give "that Name to thoſe who have the Thorax or "Lungs thus affected." In this Caſe the Pus, after Eruption, is contained between the Thorax and Lungs; and if it be not ſpeedily expectorated, the Patient dies of a Conſumption, labouring all the Time he lives under a ſlow Fever, and a conſtant Exacerbation of the Heat, and other Symptoms at Night.

The Antients called a Collection of Pus in any Part of the Body *Empyema*; and hence ſuppurating Medicines were by ſome called *Empyemata*, by others *Diapyemata*. Some give the Name of *Empyi* to thoſe who have Pus collected in any one of the Viſcera: And others, as was ſaid, will have that Name appropriated to ſuch as have a Collection of Pus between the Thorax and Lungs; that is, in the Part affected with an Inflammation, and from an Effuſion of the Pus within the Thorax, ariſes this Affection.

Pus of this Kind is generated, when the Matter of the Phlegmon is not abſterged; in which Caſe the Contents are, by the Heat, converted into Pus.

Pus. And this we find expressed by *Hippocrates*, *Sect.* 7. *Aph.* 38. where he says, " That Distillations upon " the upper Belly [ἐις τὴν ἄνω κοιλίην] come to a " Suppuration in twenty Days;" and more clearly to the Purpose, 5 *Aph.* 8. " They who labour " under a Pleurisy, if there be no Repurgation of " the Matter in fourteen Days, become affected " with an Empyema." For where the Matter which causeth the Pain is not discharged by Expectoration, nor by Stool, nor Venesection, nor Diet, nor Medicine, it either turns to a Suppuration, or suffocates the Patient. And this is well expressed by *Galen* on the *Prognostics*, in the following Words: " Whoever, he says, are affected " with Pains in the Thorax near the Seat of the " Lungs, which will not yield to Remedies, and " have no other Disorder, nor any mortal Symp- " tom, may expect a Suppuration." When an Inflammation therefore becomes suppurated, and the Humours are converted into Pus, these, if not evacuated by Spittle, are, by a Rupture of the Imposthume, discharged into the Cavity of the Thorax and Lungs, in which Case the Patient may truly be said to be *Empyos*; and by this Pus is he suffocated, or thrown into a Consumption; or freed from it in the Space of forty Days, by the Help of a Cough, according to *Hippocrates*, *Sect.* 5. *Aph.* 5. where we read, " That whoever are affected with an " Empyema after a Pleurisy, and are cleansed by " Expectoration in forty Days after the Rupture, " are freed from the Disease." But, as *Galen* says, in his Comment, " If all the Pus be not discharged " by Spitting in that Space of Time, it putrifies, " and being putrified, corrodes the Lungs, and " induces a Tabes;" which is an Extenuation of the whole Body, occasioned by those incurable Ulcers of the Lungs, in Conjunction with a slow Fever, which the *Greeks*, and particularly the *Athe-*

nians, as *Galen* ſays, call by the proper Name of *Phthoe*, and *Hippocrates Phthiſis*. When the Patient in this Caſe is reduced to Extremities, and the Caſe deſperate, the Hair falls off by Reaſon of Dryneſs, there is a Looſeneſs of the Belly, occaſioned by the Imbecillity of the retentive Faculty, as *Galen* expreſſes it, and the Spit is retained; for the Patients, however extenuated, live as long as they can clear their Lungs, by Coughing and Spitting; but when theſe ceaſe, and the Matter which ſhould be expectorated remains within, the Paſſages for Reſpiration are obſtructed, and the Patient is ſuffocated.

For the better underſtanding the Prognoſis to be formed from a Suppuration, we are to conſider firſt, whether the Patient be ſubject to it from a Pleuriſy, Peripneumony, or Quinſey; then, from what Signs we ſuſpect a Suppuration; thirdly, when the Eruption is like to be made; and laſtly, the Signs from which we may predict the Death or Recovery of the Patient.

From what Signs we may reaſonably expect a Suppuration, we are taught by *Hippocrates* in his *Prognoſtics*, where he ſays, "That Pains in thoſe "Parts (about the Region of the Lungs) which "yield not to Expectoration, Purging, Phlebotomy, Diet, nor Medicines, terminate, you may "be certain, in a Suppuration." But becauſe the Pain and Fever are more urgent about the Time of the Generation of Pus, than when it is actually generated, according to *Hippocrates*, *Sect.* 2. *Aph.* 47. it is neceſſary that the Symptoms ſhould be increaſed in the Progreſs of the Suppuration. On this Subject we are directed by *Hippocrates*, in the *Prognoſtics*, "to conſider, that the Beginning of the Suppuration commences from the Day in which the "Patient began to be feveriſh, or was ſeized with "a Rigor; or the Time when he firſt ſaid, that

"he

" he had a Weight inſtead of a Pain in the Place " affected; for from ſuch Times are we to date " the Suppuration." And *Galen*, in his Comment on the Place, ſays, that the Signs of a Suppuration are a Gravitation or Weight, inſtead of the Pain, a Rigor, or Horror, and a Fever, which is more urgent on the Patient than before: He adds, that beſides the Senſe of the Weight, there is alſo a Pain in the Sides, or in one Side, if the Suppuration be only in one Side; which is agreeable to the Directions of *Hippocrates*, in the Book juſt quoted, where he ſays, " If the Suppuration be only in one " Side, it will be proper to turn the Patient, and " learn of him whether the Pain be in one Side, " and whether it be hotter than the other; and " whether, when he lies on the ſound Side, there " ſeems to be a Weight lying on the other; for if " this be the Caſe, the Suppuration is on that Side, " which ſoever it be, where the Weight is." By theſe Signs, then, may we diſcover a Suppuration, which is indicated by a Rigor or Horror, proceeding, as *Galen* ſays, from the Acrimony of the Pus infeſting the Parts affected with the Inflammation, from the great Increaſe of the Fever, and the Weight in the Sides, or in one Side only, if the Collection of Pus be only in one Side; to which we may add a Senſe of Heat in both Sides, or only in one, if the Pus, as we ſaid, be collected only in one Side. And if this Pus, after its due Increaſe and Concoction by Nature, makes an Eruption, and is expectorated by Coughing, the Empyos, or Perſon affected with the Pus, recovers; but if the Pus can by no means be diſcharged, as it happens in great Weakneſs of the Parts, the Patient is either ſuffocated, or dies at laſt of a Conſumption. Hence it is obſerved by *Hippocrates*, in his *Prognoſtics*, " That this Diſeaſe is more fatal " to the Aged, than to young Perſons." And the

Reaſon is, as *Galen* ſays, " becauſe old Perſons are " weaker, and great Strength is required, in order " to diſcharge the Pus, by Coughing and Spitting; " and it is neceſſary for Recovery, that great Quan- " ties of Pus ſhould be expectorated by means of " a Cough." *Galen, Lib. 5. de Loc. affect. Cap. 3.* ſpeaks of ſome Empyi, who ſpit out no leſs than fifteen Heminæ of Pus, and recovered. So that they who expectorate freely, and in large Quantities, eſcape, which is imported by what we read, *Sect. 5. Aph. 15.* before quoted. But when the Pus is not diſcharged, on account of the Groſſneſs and Viſcidity of its Subſtance, the Denſeneſs of the Membrane in which the Lungs are contained, or the Weakneſs of the Faculty, theſe Defects are known by Reſpiration, in which the whole Thorax is elevated, without any Sign of Expectoration by Spitting. Thus we are told by *Galen, Lib. 4. de Loc. affect. Cap. 3.* " That the Elevation of the " whole Thorax in Reſpiration, by thoſe who are " affected with a Suppuration, on account of a " Collection of Pus between the Thorax and Lungs, " proceeds from the Imbecillity of the Patient, " who is too weak to diſcharge the offenſive Mat- " ter; and if he eſcapes Suffocation, he dies of a " Tabes, under all the Symptoms deſcribed in the " Beginning of this Diſcourſe."

The Caſe of an Empyos under a Tabes, or Consumption, is thus deſcribed by *Hippocrates, Lib. Prognoſt.* " All Empyi, he ſays, are known by the " following Characters; firſt, if there be no In- " termiſſion of the Fever, which is more gentle " by Day, and more violent by Night; if copious " Sweats ſupervene, and the Patient has a Deſire " to cough, but expectorates nothing worth No- " tice; if there be a Hollowneſs of the Eyes, a " Redneſs of the Cheeks, a Crookedneſs of the " Nails, a Heat eſpecially in the Tops of the Fin-

" gers,

" gers, a Tumor of the Feet, a Loſs of Appetite, " and an Eruption of Puſtules about the Body." *Galen*, in his Commentary on this Deſcription, tells us, " That the Fever has no Intermiſſion, becauſe " the very ſolid Parts of the Body are heated, and " retain a Heat ſomewhat like that of a continual " Fever, and, after the manner of quick Lime, gentle " to the Touch. And this Heat, which is eſteemed " a proper Sign of a hectic Diſpoſition, is increaſed " as often as the Patient eats or drinks, as it is in " Lime, by an Affuſion of Water; ſo that the " Parts feel much better to the outward Touch. " The conſtant Sweats are from Weakneſs, and a " Corruption and Diſſipation of the Aliment. " There is a Deſire of Coughing, but nothing ex- " pectorated that deſerves Notice, on account, as " we ſaid before, of the Groſſneſs and Viſcidity of " the Pus, the Tenſeneſs of the Membranes of " the Lungs, or the Weakneſs of the Faculty. " Hollowneſs of the Eyes is from Dryneſs, and is " common to all long Fevers; Redneſs of the " Cheeks is from Heat in the Lungs, and alſo from " the Cough, by which the Face is heated. The " Nails are incurvated, becauſe the Fleſh which " ſhould ſupport them is conſumed, and the infe- " rior Parts of the Tops of the Fingers feel hotter " than the reſt, as being more fleſhy; and becauſe " the hectic Heat, which poſſeſſes the ſolid Parts, " is more ſenſible in theſe Parts, which abound " moſt with Moiſture. The Feet ſwell, becauſe " the Extinction of the natural Heat begins in theſe " Parts, as being at the fartheſt Diſtance from its " Principle or Original. The Appetite is loſt from " an Extinction of the Faculty; and the Eruption " of Puſtules is occaſioned by an Effuſion of the " corroding Sanies from the interior Parts on the " Surface of the Skin." Theſe, then, are the Signs by which the Empyi are known to be in a

Consumption; and tho' their Case be desperate, they live as long as they can excrete Pus, as we have already observed from *Hippocrates*, *Sect.* 7. *Aph.* 16. One Thing in relation to this Spit, worthy Observation, is what *Galen in* 3 *Epid.* affirms, that in desperate Consumptions nothing of Concoction can be perceived by it; but Spitting at last ceases, and is suppressed, a Loosenes comes on, with a Swelling of the Feet, and other Symptoms, which shew the Case to be desperate.

As to the Time of Rupture of the Imposthume, or Vomica, it is to be considered, first, that the Humour, which is the Cause of the Pleurisy or Peripneumony, not being evacuated or removed, putrifies, and is converted into Pus; in a short time after, that makes an Eruption, and is expectorated by Coughing; but as to the determinate Time when this Pus is effused between the Thorax and the Lungs, it happens generally in the Space of twenty Days, sometimes sooner, sometimes later. The Thing itself, and the Signs by which it is known, are thus expressed by *Hippocrates*, *Lib.* 1. *Prognost.* "As to the quicker or slower Rupture "of the Vomica, they are known by the following "Signs: If there be a Pain from the Beginning, "and the Difficulty of Respiration, together with "the Cough and Spitting, continue, the Rupture "may be expected on the twentieth Day, or even "sooner; but if the Pain be more remiss, and the "other Symptoms in Proportion, the Rupture will "happen later; but it is necessary that a Pain, "Difficulty of Respiration, and Spitting, should "precede the Eruption of the Pus." From these Words *Galen* infers, that the Signs of a future Rupture, are a Pain, Difficulty of Respiration, Cough, and Spitting, which, if they are continual and violent, presage a quick Eruption; if they are not so violent, nor continued, the Eruption will be the

the flower. There is neceſſarily a Pain from the Pus adhering to and corroding the Part by its Acrimony, and the Cough and Spitting are neceſſary from the thinner Part of the Sanies, a corrupt Matter which lies upon and penetrates into the Part affected; there muſt alſo, of Neceſſity, be a Difficulty of Reſpiration, on account of the Condition of the whole Body, but principally from the acceding Pain.

The Cauſe of the Eruption is referred to the moving Force of Nature, and to the Redundance of Pus, or its depraved Quality irritating the expulſive Faculty to Expectoration.

The Eruption happens before the Time, that is, before the Concoction of the Pus, from a Corroſion of the Bag, which contains the Pus, by a pure Bile, which is unmixed with the Spit, and not arrived at that Mediocrity of Temperament, which is due and convenient for Nature; hence a Pain, Cough, Difficulty of Reſpiration, and Spitting, precede an Eruption, either from the Plenty of Pus, or the Offenſiveneſs of the Putrefaction irritating the expulſive Faculty. Such an Eruption before Maturity is ſymptomatical, and not good; but that which is made by Nature, or when the Pus is concocted, is critical and good; and the Pus diſcharged appears white, pure, equal and ſmooth; whereas, in an Eruption which happens before due Time, and is ſymptomatical, the Pus is crude, parti-coloured, fetid and yellow, or mixed with Bile. Of ſuch an Eruption the Author of *Coac. Præſag.* 392. ſpeaks, where he ſays, "They "who expectorate purulent and bilious Spit, either "ſeparately, or mixed together, generally die on "the fourteenth Day."

Theſe Things being premiſed concerning Suppurations, we are now to enquire into the Prognoſtics they will afford. And, firſt, as to the ſa-

lutary Signs in thoſe who recover, after the Eruption of the Pus, we are directed in our Judgment by *Hippocrates* in the *Prognoſtics*, where he deſcribes the Symptoms which promiſe a good Event to the Diſorder. " Good Signs, he there ſays, are, to " bear up well under the Diſtemper, to breathe " freely, to be free from Pain, to cough up the " Spit with Eaſe, for the Body to be ſoft and warm " in all Places alike; not to be afflicted with a " Thirſt; for the Urine, Stools, Sleep, Sweat, to " be regular, and all in due Order, as required; " in ſuch Circumſtances we may venture to pro- " nounce the Patient will not die." And a little after he ſays, " They who recover, are generally " thoſe who get rid of the Fever the ſame Day " that the Eruption is made, who ſoon recover " their Appetite, and are freed from their Thirſt; " whoſe Stools are ſmall in Quantity, and com- " pacted; and when the Pus is white, ſmooth, of " one Colour, free from Phlegm, and expectorated " without Labour or violent Coughing. The Pa- " tient, in ſuch Circumſtances, is very happily " and ſpeedily freed from his Malady; and the " nearer he comes up to this Character, the more " likely he is to recover." The Symptoms portending Death in a Suppuration, are enumerated by the ſame Author in the Book before quoted, as follows: " On the contrary, (with reſpect to the " good Signs before deſcribed) to bear up ill under " the Diſeaſe; to breathe ſhort and thick; to have " no Remiſſion of the Pain; to expectorate with " Difficulty; to be very thirſty; for the Body to " labour under an anomalous Fever; to have an " extraordinary Heat in the Belly and Sides; for " the Forehead, Hands and Feet to be cold; for " the Urine, Stools, Sleep, and Sweat, to be all " bad and diſorderly; the Patient will die under " Expectoration, before the fourteenth Day, either

" on

" on the ninth, or eleventh Day." And a little after the foregoing Paſſage he ſays, " The Diſeaſe " proves mortal, meaning after the Eruption, when " the Fever ceaſes not, or if it ſoon recurs after a " ſeeming Ceſſation; if the Patient be afflicted " with a Thirſt, Loſs of Appetite, or a Looſeneſs; " if the Pus expectorated be of a greeniſh [χλωρός] " Colour, a paliſh Green, livid, or pituitous, and " ſpumous; if theſe concur, the Patient will not " recover." For all theſe Kinds of Spit are condemned, *Coac.* 390. And we have Inſtances of their Fatality, 4 *Epid. T.* 4. in the Wife of *Meander* the blind Man, who immediately expectorated a greeniſh and purulent Matter; and in the Son of *Amphiphrades*, 7 *Epid. T.* 24. who diſcharged firſt a purulent and pale, and ſoon after a greeniſh Spit; and in *Euryptolemus*, *ibid. T.* 16. whoſe Spit was of a pale Colour. To the ſame Purpoſe may be applied that of *Hippocrates*, *Sect.* 7. *Aph.* 44. " If thoſe " who are affected with an Empyema, and ſuffer " Burning or Cutting for the ſame, diſcharge a " pure and white Pus, they eſcape; but if the " ſame be bloody, feculent and fetid, they die." And ſo much ſhall ſuffice concerning Predictions from an Empyema; the Peruſal of which may be of Service to the Student in Medicine.

CHAP. XX.

What is prognoſticated in acute Diſeaſes by a CERCHON, *commonly called*, A Rattling in the Throat.

IN many acute Diſorders, and in all Perſons at the Point of Death, there is obſerved a certain Ebullition, or Rattling in the Throat, by the *Greeks* called Κέρχων, or Κερχνον; later Phyſicians call it a Fervor, or Ebullition in the Throat, a rancid Aſperity about the Aſpera Arteria and Fauces; and by the

the Herd of Physicians, *Ranticum*, which perhaps is a Corruption of the Word *Rancidum*; but in my Opinion these two Disorders are not the same, since a rancid Asperity about the Aspera Arteria differs from the Fervour or Ebullition in the Throat, which *Galen*, *in Lib.* 3. *Com. de Articulis* calls, Κερχίυθη, and not Κερχωδη, from Κέρχειν, a Word expressive of the Sound or Noise with which the Breath is discharged, either on Account of the Narrowness of the Passage, or the Redundance of the Humours; though generally both these Causes concur. The Breathing of this Kind the Greeks call Δασεα, that is, rough. The rancid Asperity they call Κερχωδη, which, according to *Galen*, in *Lib.* 2. *de Caus. Symptom.* is a small Effort to cough; which, however, is not always succeeded by Coughing; for when the Fauces are so irritated as to excite a Cough, this Effect is by *Galen*, *in Lib. de Articulis*, called Κερχνωδεῖν. Be this as it will, it is certain that the Fervour and Ebullition in the Throat greatly resembles the rancid Asperity, only in the former the Sound or Noise is manifestly heard, but more obscurely in the latter. Next to these is a Stertor, in which the Sound is louder than in the other two. Many confound these Disorders, affirming that they only differ with respect to the different Parts affected, and their various Degrees of Violence. Thus they call that Noise a Stertor, which is heard in the Palate and Nostrils, such as that made by sleeping Persons. A Fervour, or Ebullition, is by them called that Noise which happens in the Larynx, in the Head, or in the Mouth of the Aspera Arteria, which is called the Throat; whereas the rancid Asperity is the Cause of the Noise which is made in the Aspera Arteria itself. In dying Persons, this Disorder, which is by the *Greeks* also called ρευχος, and by the common Herd of Physicians, *Ranticum*, is a Kind of Struggle between the Breath and the

Humours in the Aſpera Arteria. Theſe Diſorders ariſe from the Weakneſs and Infirmity of Nature, when, for Inſtance, the Lungs are full of Pus, or any other Humour. Thus *Hippocrates*, in 2 *Prognoſt. Text.* 41. tells us, " That thoſe Spits are bad which are not thrown up by the Lungs, but on Account of their too large Quantity, make a Noiſe in the Throat. The Lungs do not throw up the Spit, either on Account of the Lentor of the Humour to be evacuated, which adhering to the Aſpera Arteria, and being agitated by the Breath, produces a Stertor, or an Obſtruction of the Bronchia; or the Spit is retained by means of a Compreſſion and Obſtruction of the Aſpera Arteria, and Throat; in Conſequence of which, the Humour being agitated by the Breath, makes a Noiſe in the Throat. Hence *Galen*, in *Lib.* 3. *de diſſec. Reſponſ.* ſays, " Thoſe " who have narrow Breaſts are ſubject to Stertors." This Author aſſign'd only two Cauſes of this Diſorder, namely, the Narrowneſs of the Aſpera Arteria, or a Redundance of Humour, or both together. But to theſe Cauſes we muſt neceſſarily add the Weakneſs of Nature, which, in dying Perſons, can expel nothing, ſo that in ſuch Perſons a Rattling in the Throat is produced. Hence we infer that this Symptom is not always mortal, but only when the Lungs, being oppreſſed by a Redundance of Humours, cannot throw up the Spit, or when the Aſpera Arteria is greatly obſtructed; which produces a Sertor and gaſping in dying Perſons. This was obſerved in *Menon*, of whom *Hippocrates*, in *Lib.* 7. *Epidem. Text.* 47. ſays, " He had a " whizzing Noiſe, and Stertor of the Aſpera Ar- " teria." And *ibid. Text.* 27. it is ſaid of the Wife of *Theodorus*, " That ſhe had a certain ſhrill Noiſe " in the Aſpera Arteria and Breaſt, which ſeem'd " to proceed from a Fluctuation of Pus." *Ibid. Text.* 9. it is ſaid of the Wife of *Polycrates*, " That

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" in the Aſpera Arteria and Fauces ſhe had a " whizzing Noiſe, and a *Crechnon*;" which is by *Valleſnis* tranſlated, *a rancid Aſperity*. *Ibid. Text.* 16. it is iaid of *Ermoptolemus*, who laboured under a Peripneumony, " That on the fourteenth Day he " expectorated a pale Matter, and was ſeized with " a Stertor, and died convulſive." And *ibid. Text* 14. the Son of *Amphiphriades*, who was pleuritic, is ſaid " to have had a rancid Aſperity and a whizzing " Noiſe in his Fauces." In all theſe Patients this Sympton is to be referred partly to the Weaknefs of Nature, and partly to the Redundance and Lentor of the Pus or Humour, It is always a bad Sign, and greatly to be dreaded, eſpecially if it appears after the Beginning of the Diſeaſe, when the Strength is exhauſted; ſince it then denotes, that Nature is ſo weak as to be able to expel nothing; in Conſequence of which the Patient muſt be ſuffocated. Beſides, this Symptom will neceſſarily be accompanied with ſome other mortal Sign. But it often happens in the Beginning of Diſeaſes, that the redundant viſcid Humours which adhere to the Aſpera Arteria, are afterwards concocted and expectorated; on which the Cerchos or Ebullition ceaſes. Such an Ebuullition is known from the Preſence of other good Signs, without any one of a mortal Nature. A laudable Ebullition of this Kind was by *Hippocrates* obſerved in *Piſiſtratus*, of whom, *in Lib.* 7. *Epidem. Text.* 16. it is ſaid, " He had a " Stertor in his Fauces, bore his Diſeaſe eafily, was " free from a Delirium, the Heat, Expectoration, " and Stertor remitted, and the Patient recovered." Theſe are the Prognoſtics from Spits.

CHAP.

CHAP. XXI.

Of Presages from Abscesses.

WE have, in the sixth Book, considered what Abscesses are, examined their Differences, and enumerated the Signs by which Physicians prognosticate future Abscesses; we now come to investigate what Abscesses prognosticate Death, and what Recovery, in acute Diseases. These Prognostics then are drawn either from a Disease which is not terminated, or a thin and crude Urine; which, according to *Hippocrates*, in 2 *Prognost. Text.* 24. the Patients discharge for a long Time; and according to *Galen*, in *Lib.* 2. *de Crisibus*, from the salutary Signs. But it may be ask'd, from what Abscesses we draw our Prognostics, since we before observed, that *Hippocrates* gave the Name of Abscesses to various Disorders. First then, by an Abscess we understaud every Translation of Humours from one Part of the Body to another, in which Translation those Humours are either deposited in a particular Part, or evacuated. Hence Excretions and Congestions of Humours are called Abscesses: By Abscess we also mean the Change of one Disorder into another, as when a Quinsey is changed into a Peripneumony, an Empyema, or Cutaneous Eruptions, arising from an internal Cause. What is more properly meant by an Abscess, is such a Congestion of Humours as produces a Tumor. But by Abscesses we here mean all entaneous Eruptions, and Defluxions of Humours, accompanied with Tumor and Inflammation. Good Abscesses are therefore such as appear with the Signs of Concoction on a critical Day, in the Parts most remote from the Viscera and Seat of the Disease, such as continue, such as are not diminish'd but augmented, such as come

ceme to a Suppuration, ſuch as appear with good Signs, and ſuch as afford Relief to the Patients. It is before obſerved and evinc'd from *Hippocrates*, *in Edidem. Lib.* 1. *Sect.* 2. " That Concoctions prog-" noſticate a ſpeedy Criſis, and a ſafe Termination of the Diſeaſe; ſo that the Signs of Concoction never appear unſeaſonably. Hence not only all Abſceſſes but alſo all Excretions appearing when the Diſeaſe is concocted, are laudable. A good Prognoſtic may be the more infallibly made, if Abſceſſes appear on a critical Day, which indicates, that they are naturally good, that is, have a laudable Conſiſtence, Figure, Place, Colour, Bulk, and Quantity. Soft Abſceſſes are, according to *Hippocrates*, better than ſuch as are hard. The naturally good Abſceſſes are, by the ſame *Hippocrates*, in *Lib.* 6. *Epidem*, *Sect.* 1. *Text.* 12. deſcribed in the following Manner: " They are, ſays he, acuminated conical Tubercles, " appearing externally, and coming equally to a " Maturation, not hard about the Roots, ſloping, " and without without two Eminences; but ſuch as " are oppoſite to theſe are bad, and if much oppo-" ſite, malignant." And in *Prognoſt.* he tells us, " That thoſe Abſceſſes are beſt which riſe higheſt, " and are acuminated; whereas thoſe are worſt " which do not affect the external Parts." As to the Place of Abſceſſes, thoſe on the Surface of the Body are commended by *Hippocrates*; ſince in *Sect.* 6. *Aph.* 25. it is ſaid " to be a good Sign when an " Eryſipelas is convey'd from the internal to the ex-" ternal Parts." For this Reaſon, *in Prognoſt.* he affirms, " That in a Quinſey, a Tumor in the " Throat is a good Sign." Thoſe Abſceſſes are " alſo beſt which appear in the moſt remote and " ignoble Parts." And *ibid.* for the ſame Reaſon " he pronounces, " That in all violent Diſorders of " the Lungs, all Abſceſſes in the Legs are highly " beneficial." *Galen* ſpeaks in the following Man-

" ner:

ner: "If the Doctrine of *Hippocrates*, delivered in "*Lib.* 2. *Epidem. Sect.* 1. is true, that those Ab- "sceſſes are good which are in the loweſt Parts of "the Body, and at the greateſt Diſtance from the "Seat of the Diſorder; they muſt be ſtill better, if "they are produced by the Concoction of the "Humours." Thoſe Abſceſſes are alſo good which are of a reddiſh, a yellow, or pale Colour. Abſceſſes ought neither to be ſo ſmall as to be inſufficient to evacuate the peccant Humours, nor ſo immoderately large, as to produce an Evacuation which cannot be born by the Patient; ſince the Quantity of the Matter evacuated ought exactly to correſpond to the Quantity of that which excites the Diſeaſe; for immoderate Abſceſſes are dangerous, becauſe they affect ſome of the internal Parts, or, perhaps, ſuch as are neceſſary to Life. Thoſe Abſceſſes are alſo good which are ſoon maturated, and come to a Suppuration. Thus *Hippocrates*, in 2 *Prognoſt. Text* 64. tells us, "That in Diſorders of the Lungs, "Abſceſſes about the Ears, and ſuch as come to a "Suppuration in the inferior Parts, are good, ſince "ſuch Patients recover." Thoſe Abſceſſes are alſo good which continue, ſince they indicate the Strength of the natural Faculty; as alſo thoſe which are increaſed, and come to a Suppuration; thoſe which appear with good Signs, and which either alleviate or totally remove the Diſorder; ſince theſe are of the truly critical Kind, and proceed from the Prevalence of Nature over the Diſeaſe. Theſe are the Abſceſſes of the natural Kind; but all thoſe are bad which appear with the Signs of Crudity, not on critical Days; ſuch as are naturally malignant; ſuch as are near the Seat of the Diſorder, or the principal Members of the Body; ſuch as continue long without coming to a Suppuration; ſuch as are too few, or too numerous; ſuch as are too large, or too ſmall; ſuch as immediately return, and diſappear; ſuch as

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are accompanied with bad Signs; and ſuch as, inſtead of relieving the Patient, render him worſe. With reſpect to ſuch Abſceſſes as appear when the Diſeaſe is crude, *Galen*, in *Lib.* 1. *Epidem.* ſpeaks in the following Manner: "The Crudity of the "Humours was the moſt conſiderable Misfortune "which happened at this Time, becauſe if Nature "attempted their Excretion, ſhe was either over-"come by them, or ſuffered them to return, or "by reaſon of the ſcanty Excretion, attempted the "Formation of an Abſceſs: We have elſewhere "ſhewn, that no Excretion nor Abſceſs can be "truſted to, which appears with the Signs of Cru-"dity, though it arrives at a due Maturation; "whereas Concoction indicates a ſpeedy and ſafe "Criſis. But at this Time the Cauſe of the Fever "lodg'd in the Veins was not concealed; the Pa-"rotids were however maturated, which is a rare "Caſe, and ought to be carefully attended to; for "Concoction may happen in a particular Part of "the Body, when the whole Body is not concocted." Thoſe Abſceſſes are alſo bad which do not happen on the critical Days, ſince they indicate, that the Defluxion or Excretion of the Humour is not made by Nature acting in a ſalutary Way; but that they proceed from the Redundance or peccant Quality of the Humours, irritating Nature to the Struggle before the due Time. Hence it is not ſurpriſing, that the Meaſures of Nature being thus diſconcerted, ſhe ſhould expel the Matter on ſuch Days as are not critical. Bad Abſceſſes are ſtill more eaſily diſtinguiſhed, if they are naturally malignant; ſuch as thoſe mentioned by *Hippocrates*, in 1 *Prognoſt. Text* 30. where they are called "Tuberoles, hard "about the Roots, with two Eminences, and un-"equal Surfaces." And in *Lib.* 6. *Epidem*, *Sect.* 1. *Text* 12. they are deſcribed to be "flat unaccu-"minated Tubercles, which are not maturated equally

" equally, but are hard about the Roots, and have " two Eminences." All malignant Abſceſſes, accompanied with a continual Fever, are mortal. Abſceſſes of this Kind are deſcribed by *Hippocrates*, in 3 *Epidem. Com.* 1. *Text.* 13. where he informs us, " That malignant Fevers cut off many; and that " during that peſtilential Conſtitution, Tuberbcles, " Carbuncles, Defluxions about the Pudenda, and " malignant Herpes, not only rag'd, but alſo cut " off many Patients. Too large and too ſmall Abſceſſes are alſo bad. Thus *Hippocrates*, in 1 *Epidem. Sect.* 2. tells us, " That a certain Train of " Symptoms were ſucceeded by Abſceſſes larger " than the Patients could bear, or ſmaller than " could be of any Service." And *ibid.* he ſays, " The Patients had ſmall Papulæ, like ſmall Pimples, " which appeared with Sweat, but did not form an " Abſceſs." Copious Abſceſſes are alſo dangerous, unleſs they become purulent, becauſe they denote a Redundance of Humours, by which it is to be dreaded, leſt not only the Skin, but alſo ſome of the internal and more noble Parts ſhould be affected. Thus the Author of *Coac. Præſag. Text.* 114. tells us, " That in a continual Fever the Appearance of " Puſtuls all over the Body is a mortal Sign, unleſs " a purulent Abſceſs ſupervene;" For in acute Fevers, when the Body is full either of ſmall or large Abſceſſes, there is Danger leſt they ſhould return, and affect ſome of the principal Parts neceſſary to Life, which is a mortal Sign. A Caſe of this Kind was by *Hippocrates*, in *Epidem. Lib.* 7. *Text.* 114. obſerved in the young Son of *Tymonactes*, of " whom it is ſaid, " For two Months he had exan- " thematous Eruptions on his Legs; and on his " Buttocks, and Hypogaſtrium, very red Tu- " mors. When theſe diſappeared, he was for many " Days ſeized with Convulſions and an Epilepſy, " which proved mortal." No leſs dangerous are

Tumors which are highly red, but especially those of a livid or blackish Colour. This is sufficiently known to Nurses, who always think that Recovery is to be despaired of, when Tumors are very red, livid, or blackish. *Hippocrates*, in *Epidem. Lib.* 1. *Sect.* 2. says, "That in that pestilential Constitution, the Patients were afflicted with blackish "Tumors near their Ears, which did not prove "critical." In *Lib.* 1. *Epidem. Ægr.* 9. we are told, "That on *Crito*, when at the Point of Death, "there appeared black Pustules." *Ibid. Ægr.* 2. we are told, "That the Papulæ which appeared on "*Silenus* before his Death, were round, small, "highly red, and resembling Pimples." Abscesses which disappear without any apparent Cause, are so far from being to be trusted to, that they are greatly to be dreaded, because, without some previous Evacuation or Purging, either natural, or procured by Art, they return to the internal Parts. *Hippocrates*, in 2 *Prognost.* affirms, "That Abscesses of this Kind "infer the Danger of a Delirium and Death." And in *Lib.* 6. *Epidem. Sect.* 4. *Text* 1. he says, "That "if Tumors appearing near the Ears, during the "Time the Crisis of any Disorder is carrying on, "return and disappear before they come to a Suppuration, such Patients may expect a Relapse." *Galen*, in 1 *Prorrhet. Com.* 1. speaks in the following Manner: "Among all other Signs, none is worse "than the Return of Tubercles or Pustules, from "the Skin to the internal Parts, but especially the "Return of Abscesses, either on Account of the "Thinness of the Matter, the Relaxation of the "Part, the Heat of the Air, the Application of "Discutients, or the Want of Strength." Thus *Hippocrates*, in 1 *Epidem. Sect.* 2. tells us, "That "some had Defluxions on their Joints, especially at "the Coxendix, which in a few were critically "terminated, but soon returned to their former

"*State*."

"*State.*" Thus *Hippocrates*, in *Lib. 7. Epidem. Text.* 124. ſays of *Anaxonores*, who was ſplenetic and ill-coloured, "That he had a Tumor about the "Coxendix, which diſappearing, he died." It is alſo of great Importance to diſtinguiſh Abſceſſes which diſappear after a long Continuance, from ſuch as return to the internal Parts immediately after their firſt Appearance; theſe laſt are far worſe and more dangerous than the others. Thus *Galen*, in 1. *Prorrhet. Com.* 1. calls ſuch Abſceſſes, of all others the moſt dangerous. Sweats alſo, which diſappear immediately after their Erruption, are bad, becauſe they indicate, that though Nature attempts the Excretion, ſhe is yet ſo weak that ſhe cannot complete it. *Hippocrates*, in 1 *Epidem*, *Text* 2. obſerves, "That "ſmall Papulæ are very bad, becauſe they imme-"diately diſappear." And a little before, when ſpeaking of bad Abſceſſes, he ſays, "They imme-"diately returned, and became worſe than before." *Hippocrates*, in *Lib.* 5. *Epidem. Text.* 92. ſays of the Son of *Euphranon*, who died, "That his exanthe-"matous Eruptions continued but a ſhort Time, "and diſappeared without any manifeſt Cauſe." Theſe are the Prognoſtics drawn from the Abſceſſes, which return to the internal Parts. From the Places of Abſceſſes Phyſicians may alſo prognoſticate their Events; for thoſe are worſt which appear externally, near any of the Viſcera. Hence it is, that Abſceſſes behind the Ears are always ſuſpected as bad, becauſe they probably happen in Conſequence of a Loſs of Strength, and ſeem to produce freſh Cauſes of the Diſeaſe. An exhauſted Patient cannot ſupport large Abſceſſes, which require Strength and Length of Time to bring them to a Concoction and Suppuration; but ſmall Abſceſſes do not ſo conſiderably impair the Strength. Abſceſſes behind the Ears are the more ſuſpected, becauſe they are near the Brain. Tumors under the Armpits, and Buboes

in the Groin, are alſo ſuſpected, becauſe they generally rage in peſtilential Conſtitutions, when the internal Viſcera are moſt conſiderably affected. No Abſceſſes with bad Signs can poſſibly be good, becauſe they produce no Criſis. Thoſe are alſo bad and dangerous Abſceſſes, which, inſtead of removing the Fever, and relieving the Patients, render both worſe. Theſe are the Prognoſtics drawn from bad and mortal Abſceſſes, which we ſhall illuſtrate by a few Examples of thoſe Abſceſſes which happen behind the Ears, and which Phyſicians call Parotids. *Hippocrates*, in *Prognoſt. lib.* 1. delivers the Method of prognoſticating theſe Abſceſſes in the following Manner: "Theſe Abſceſſes are to be conſidered thus; "if the Fever remains, and the Pain does not ceaſe; "if the Spit is not duly expectorated, nor bilious "Stools diſcharged; if the Stools are not well con-"cocted, but unmixed; if a ſmall Quantity of "Urine, with much Sediment, is diſcharged, and "if all the other Signs ſeem to be of a ſalutary Na-"ture, ſuch Abſceſſes are to be expected. In thoſe "who have any Degree of Inflammation about the "Hypochondria, Abſceſſes happen in the inferior "Parts; whereas Abſceſſes appear in the ſuperior "Parts, in thoſe whoſe Hypochondria are ſoft, and "free from Pain, or who for ſome Time labour under "a Difficulty of Breathing, which however ſoon "ceaſes, without any other manifeſt Reaſon." The peculiar Signs then of future Parotids are, when the Diſeaſe is not of long Continuance, when the Difficulty of Breathing ſoon ceaſes, or when an Heavineſs and Pain of the Head ſucceed; and when an Oppreſſion during Sleep, and a Deafneſs ſupervene, Abſceſſes muſt neceſſarily happen behind the Ears." *Galen*, in 1 *Prorrhet. Com.* 75. *Text* 168. affirms, That Parotids are prognoſticated by a Pain of the Head, a Coma, and Deafneſs. Among Abſceſſes, thoſe are good which are of a moderate Bulk,

and

and without Pain, which appear on ſome critical Day, after the previous Signs of Concoction, and whilſt the Patient's Strength is entire. Abſceſſes of this Kind are by *Hippocrates*, in *Lib.* 1. *Epidem. Sect.* 1. deſcribed in the following Manner: "Many had "Tubercles near one of the Ears, and moſt near "both; and theſe Tubercles were prominent, "free from a feveriſh Heat, and acuminated; in "ſome they were a little inflam'd, but were all "removed without any Inconvenience. Theſe "were lax, pretty large, diffus'd, without Inflam-"mation and Pain; and in all the Patients they gra-"dually diſappeared" Some Abſceſſes proceed from a caliginous Matter, and are for that Reaſon difficultly cur'd; whereas ſuch as are eaſily diſcuſs'd, proceed from an œdematous Phlegm, from a phlegmonous Blood, from a yellow eryſipelatous Bile, or from a thick and viſcid Matter. Hence it is, that in many Patients, after the Fever is removed, the Abſceſſes remain without either ſubſiding, or coming to a Suppuration. Thus *Hippocrates*, in 1 *Epidem. Sect.* 2. tells us, "That thoſe painful Tubercles, "which in ſome appear near the Ears, ſometimes "neither ſubſide, nor come to a Suppuration, after "the Fever is critically terminated; but in ſuch "Patients the Abſceſſes are removed, either by a "bilious Flux, or a Dyſentery, or a Diſcharge of "Urine with a thick Sediment; which happened "to *Hermippus* and *Clazomenius*." Theſe Parotids are good, or at leaſt not bad, which terminate after previous Purgings or Evacuations, eſpecially if the Urine is laudable, as perhaps was that of *Clazomenius*, whoſe Hiſtory is recorded in *Lib.* 1. *Epidem. Ægr.* 10. Perhaps the Author of *Coac. Preſag. Text.* 204. had this in his View, when he ſaid, "Gentle Coughs, accompanied with Spits, ſoften "and mollify the Parotids." Thoſe Abſceſſes alſo, which come to a Suppuration with the Signs of Concoction,

coction, and in which the Pus is white and unmix'd, are ſalutary. On the contrary, thoſe Abſceſſes are bad, which are greater than the Patients can bear, ſmaller than to evacuate the peccant Matter, which are accompanied with Pain, or which appear after the Strength is exhauſted, without the previous Signs of Concoction, upon ſuch Days as are not of the critical Kind, and with bad Signs; ſuch alſo as are ſo far from relieving the Patient, that they rather render him worſe; and ſuch as return to the internal Parts, without a manifeſt Cauſe or Reaſon, according to *Hippocrates*, in 6 *Epidem. Sect.* 4. *Text.* 1. alſo prognoſticate a Relapſe. And *Galen*, in 1 *Prorrhet.* pronounces them the worſt of Signs. The Concubine of *Nicolaus*, in *Lib.* 7. *Epidem. Text.* 50. is ſaid to have had large Abſceſſes of this Kind; which being removed without apparent Reaſon, Death ſucceeded. The Author of *Coac. Preſag.* in *Text* 138. tells us, "That if in "burning Fevers, Abſceſſes happening near the "Ears do not come to a Suppuration, the Patients "are not generally preſerved." And *ibid. Text.* 207. we are told, "That if Tumors about the "Ears, eſpecilly in acute and burning Fevers, nei-"ther terminate the Diſeaſe, nor are maturated, "nor ſucceeded by an Hemorrhage from the "Noſe, nor a Diſcharge of Urine with a thick Se-"ment, the Patients die." The Author alſo of *Coac. Preſag. Text* 201. tells us, "That in acute "Fevers, accompanied with a Tenſion of the Hy-"pochondria, Tumors ſlowly ariſing about the "Ears, after the Evacuation of much fetid Matter, "prove mortal." And *ibid. Text.* 206. we are told, "That when the Pus diſcharged or the ſup-"purated Matter is not white, it is a mortal Sign." And *ibid. Text* 209. thoſe Parotids are ſaid to be bad, which appear with a Diſcharge of Urine not duly concocted; which, according to *Galen*, as we have already

already obſerved, holds true of thoſe Abſceſſes which come to a due Suppuration. Hence duly ſuppurated Parotids are to be ſuſpected without the Signs of Concoction. Abſceſſes of this Kind are, in *Epidem. Lib.* 1. *Sect.* 2. ſaid to have happened to *Cratiſtonactes*, and the Painter's Maid, who, notwithſtanding the due Suppuration of their Abſceſſes, both died. As for exanthematous Eruptions, ſuch as Papulæ, Small-pox, Meaſles, Puſtules, Carbuncles, Spots, Buboes, and Tumors of the Hypochondria, their Prognoſtics are to be drawn from what we have ſaid not only in this Chapter, but alſo in various Parts of the preceding Books.

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FINIS.

ERRATA.

PAge 84. l. 19. for *Excrements*, read *Extremities*; p. 124. l. 3. for *Caſes*, read *Cauſes*; p. 314. l. 29. for *Moiſtuce*, read *Moiſture*; p. 331. l. 20. for *then*, read *thoſe*; p. 348. l. 2. for *Crechnon*, read *Cerchon*; p. 348. l. 25. for *Cerchos*, read *Cerchon*; p. 352. l. 34. for *Tuberoles*, read *Tubercles*.